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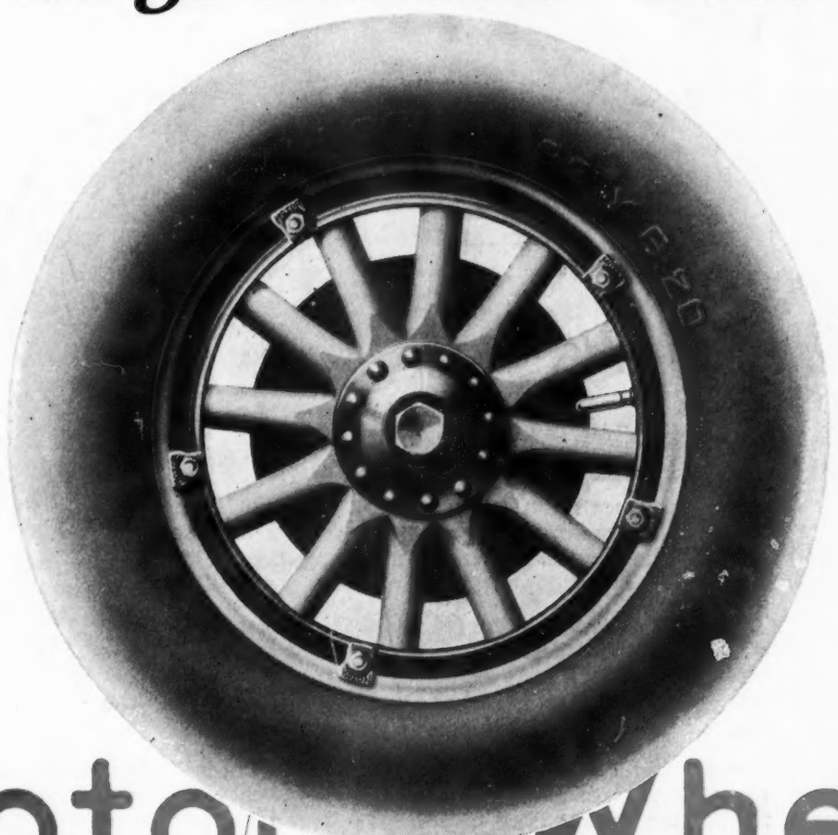

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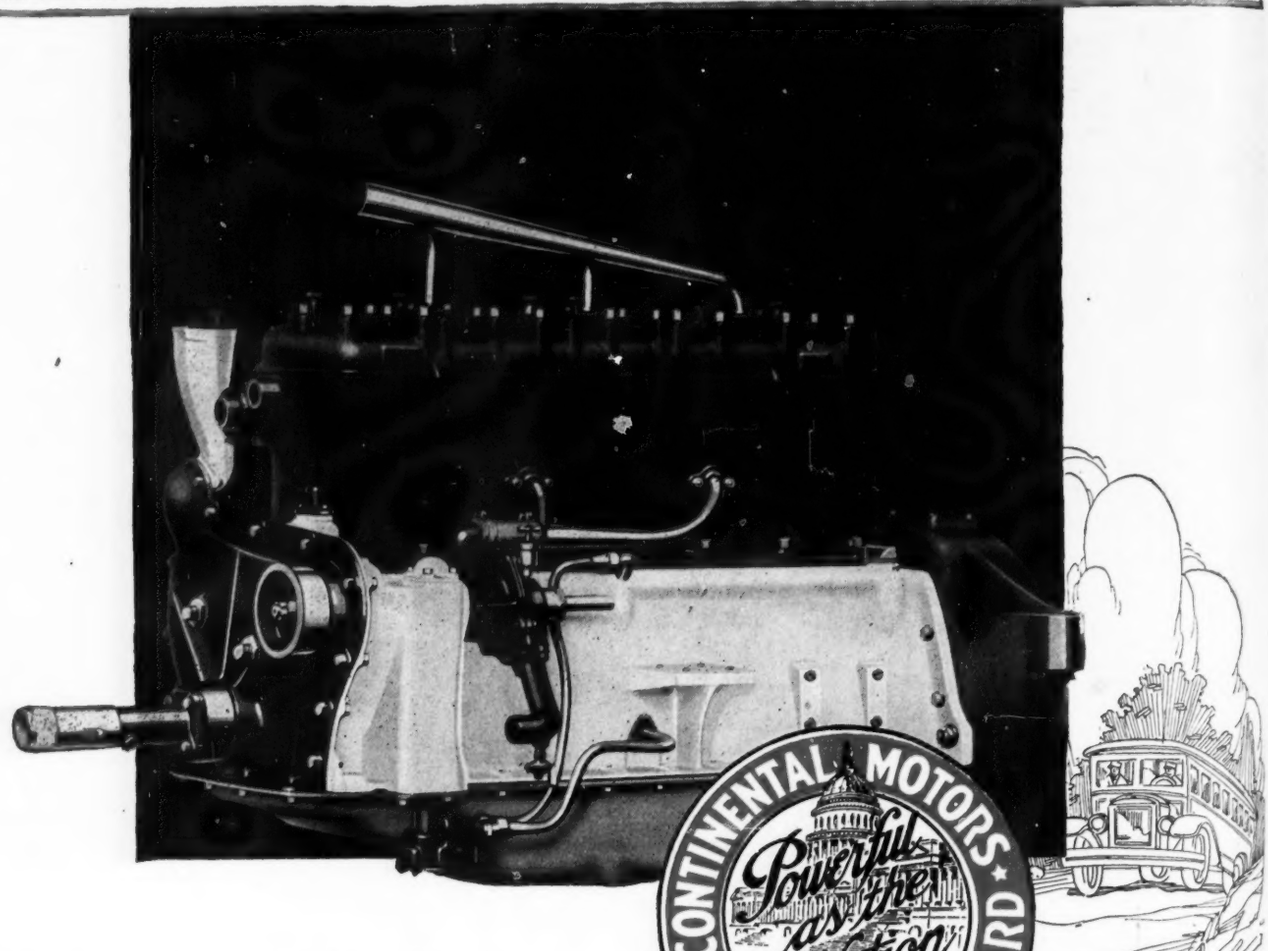

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Detroit and Muskegon

AUTOMOTIVE INDUSTRIES
The AUTOMOBILE

VOL. 51 NEW YORK—THURSDAY, SEPTEMBER 11, 1924 NO. 11

Car Sales Continue on Up Grade as Vacation Season Ends

Fall selling prospects, dealer relations, preparations for shows, conventions and the winter production schedule are chief topics before returning executives.

By Norman G. Shidle

VACATION time has passed into the Kingdom of Memory. The industry has gone back to work. Most of the big outdoor sporting events have been completed and the automotive executive can give undivided attention to building and selling his new models without worrying about who is going to grab off the honors in golf this year and whether or not Bill Tilden will be supreme on the tennis courts for another twelve months. Epinard, the polo players and the Prince of Wales have done their stuff and have made way for the more serious business of selling automotive products.

True there will have to be a sidelong glance toward the sport page for a few weeks to come since the major league baseball races haven't been put on the sure-thing basis they usually reach by Labor Day. Then the big quadrennial Presidential Race still is in progress with more starters than usual, but it will be easy to keep track of that over the radio.

A few plutocrats will extend their vacations through September and spend October getting new clothes for the winter season at Palm Beach, but the regular garden variety executive, both in the manufacturing and distributing branches of the industry, is back at his desk, taking stock of the business events of the summer, picking up the loose ends of office routine and sizing up the situation as it exists today.

THE economic picture which greets him is painted in brighter colors than was that which he left last June. Several outstanding trends have developed during the summer and a few major problems present themselves for his attention as he comes back to work. Among these are:

1. The retail sales sky has brightened decidedly.
2. A general improvement has taken place in dealers' car stocks in practically every section of the country.
3. Dealer-manufacturer relations appear to be in a somewhat unsettled condition temporarily, although the troubles which have developed seem to be based on lack of diplomacy as much as on any fundamental difficulties.
4. The convention season is about to begin and preparations for the shows are being started.
5. Production policies for the winter months will have to be determined in the near future.

Conditions the Executive Finds

PROBABLY these will be among the first topics demanding the attention of the home-coming executive. What conditions will he find?

Business certainly is picking up. Reports of retail sales from every part of the country for the month of August are encouraging. Not only were a fair number of new cars placed in service last month, but used car stocks were reduced materially in all sections. This movement of cars has resulted largely, of course, from improvement of business conditions in all lines, but strong selling effort has been a big factor in more than one town.

It is admitted that used cars are not moving rapidly. Dealers are not having any trouble fighting off buyers or in making certain that the line forms to the right. But they are finding it possible to sell used cars in reasonable quantities by putting a tremendous lot of sales push behind them. The used car problem has not been licked by a good deal, but it is causing

less distress to automotive digestive organs than it did a few months ago.

This depletion of used car stocks is due in no small measure to the curtailed production schedules instituted two or three months ago by almost every manufacturer. Despite increased retail sales, moreover, no major advances in output were recorded for August and only gradual stepping up of schedules is to be anticipated as the fall advances.

Dealers Dissatisfied

Coincident with these favorable aspects of the situation is a rather general dissatisfaction in dealer ranks with sales policies of manufacturers. Dealer associations have sent several official complaints to the National Automobile Chamber of Commerce charging manufacturers with unsound policies and destructive merchandising methods.

A good many of the complaints revolve about difficulties which every manufacturer recognizes and which many of them have been doing their best to avoid for some time. Competitive conditions undoubtedly have brought about uneconomic practices in certain instances, but no manufacturer ever is knowingly going to indulge in excesses likely to ruin his dealer organization. Numerous difficulties exist at present, but to find remedies for them is not easy. Suggestions which might be of great practical value if the manufacturing branch of the industry thought and acted as a unit may prove of little use under the conditions which actually exist. This must be understood both by dealer organizations and by manufacturers if real progress is to be made. AUTOMOTIVE INDUSTRIES recently analyzed this phase of the situation in an editorial which said in part:

"Recognition of two facts is specially important in any discussion of the proposals made recently by dealers' associations to manufacturers.

Manufacturers Never Have Operated as Unit

"The first is that manufacturers do not and probably cannot operate as a unit on internal merchandising policies, despite their organization in the form of the National Automobile Chamber of Commerce. Such an organization frequently makes it possible for the industry to present a united opinion on questions relating to the public or to other industries which affect each manufacturer in about the same way. An entirely different situation arises when the question at issue concerns only the industry itself and affects each individual manufacturer in a different way.

"Changes of policy within the industry in the long run must come about through individual action rather than through attempts to make binding agreements. The latter procedure not only would be likely to come into conflict with some phase of Federal law, but would be foreign to the fundamental spirit of progressive business associations which fosters, rather than hinders, individual initiative and experimentation. Sometimes it would be to the benefit of the entire industry if all manufacturers would adopt certain policies, but such unanimity of action can be generated only from unanimity of opinion.

"The second fact to be remembered is that many manufacturers already are making—and have been making for some time—serious, conscientious efforts to solve in a constructive way the problems presented by the dealers. Some of them have licked their most serious difficulties. Others still are far from the goal. But there is no question that much honest work is being done by individual car builders to better merchandising conditions. Admission of this fact need not obscure the many ills that still need to be remedied, but it may make for a better understanding between the retailers and producers."

Need for individual consideration exists in the dealer field. Each dealer reacts to a given policy in a slightly different way. Each one is an individual and the human element has an important bearing on the way he should be handled. One type of man puts forth his best efforts when given freedom of action and full responsibility within his territory. He will sell more cars when pressure from the factory is least. Another type has to be pushed constantly or he will fall below his maximum efficiency. To handle each retailer individually presents almost an insuperable merchandising problem, but the necessity for applying a blanket policy to every type of merchant undoubtedly is one cause of dissatisfaction in the selling ranks.

Better Understanding Hoped For

Progress toward solution of dealer-manufacturer friction doubtless can be made through closer and more constant contact, either through special committees representing each group or through some other method. Perfect accord is scarcely to be expected as a result of any conference or series of conferences, but better understanding of mutual problems and greater tolerance in judging actions is almost certain to result. Any conference committee developed should be so constituted as to give representation to unorganized dealers as well as to those who are members of an association.

One close observer of automotive merchandising methods says that many of the troubles which have arisen in the distributing field recently have been magnified by the generally poor business experienced in all parts of the country. His opinion is amplified by a leading factory executive who thinks that most of the present arguments and discussions will vanish like the morning mist when sales get back to normal.

Question Not a Simple One

The question is not quite so simple, however. Whether business is good or bad, merchandising methods should be economically sound. Waste very often does go unnoticed when covered up by substantial profits, but its parasitic qualities are none the less undesirable. If left to grow in times of good business, these inefficiencies attain remarkable size and power with which they may come near to strangling the industry when sales slip and conditions are bad.

Through an exchange of ideas and comparison of results the industry must go on improving its methods and working out merchandising policies which will operate to the benefit of both factory and dealer. Progress along this line seems likely to be achieved at the various conventions and shows which are scheduled for the coming months as well as through special conferences which may be arranged.

Manufacturers have an opportunity to make the shows of greater value to their own organizations this year than ever before. The show committee of the N. A. C. C. is urging that engineers and executives of car factories take full advantage of the two trade days which will precede each of the big national shows next winter and there are strong indications that many factories will heed the call.

Opportunities for Discussions

Meetings of various trade organizations will offer a real opportunity for talking frankly about the practical problems before the industry today. One of the first tasks for the executive back from his vacation might well be to urge and help the particular trade organizations in which he is interested to put forth special efforts this fall to get frank—and brief—discussions of really vital problems before its members.

Trade association meetings offer the best possibilities in the world for developing constructive action in the industry. Their success in realizing those possibilities depends largely on the topics selected for discussion and on the manner in which the subjects are handled. The first of these requirements has been taken care of better than the last up to the present time. Facts—punch—frankness—brevity; these are much to be desired characteristics in convention talks.

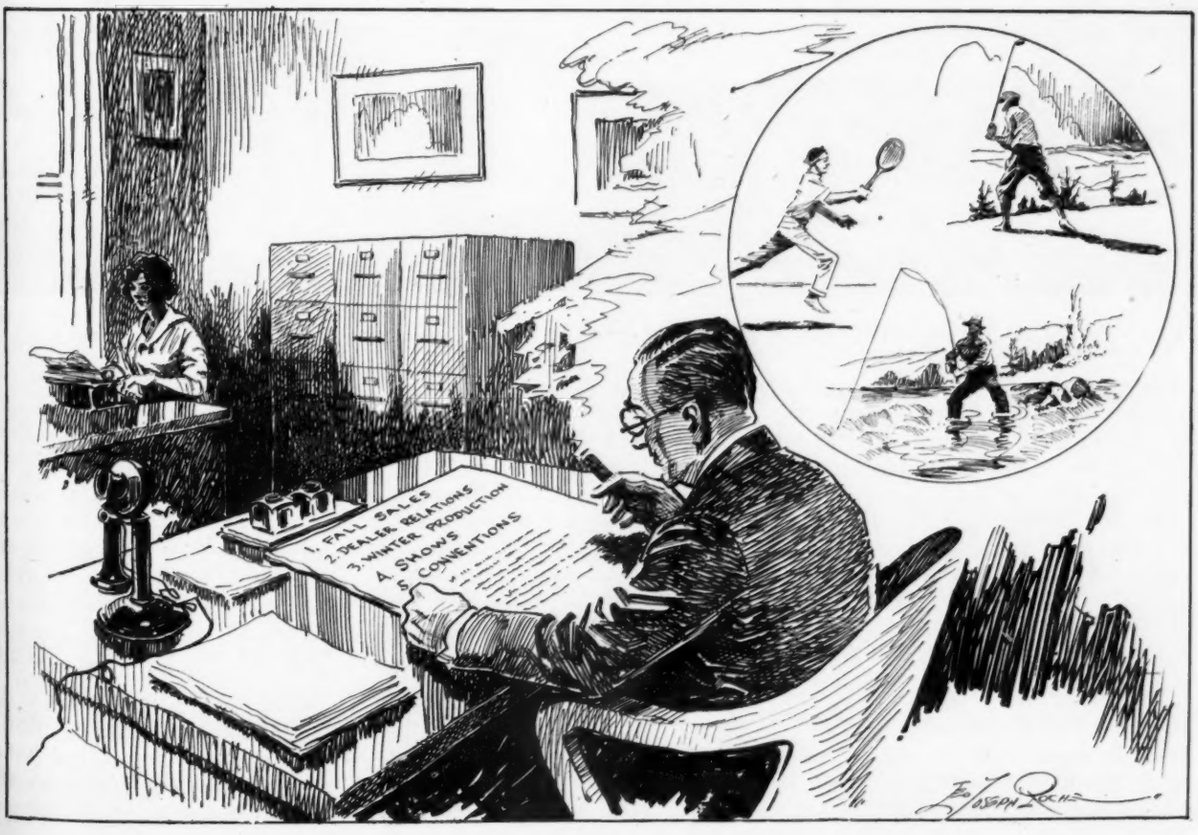
Already evidence is coming in that the trade association meetings this fall are going to be built along very practical and very interesting lines. Their value can be increased materially if executives not only will attend them but will use them as a forum for the presentation of their ideas on current automotive problems.

The final topic which lies before the executive as he reaches his desk this fall is that of the winter production schedule. Perhaps the man directing the destinies of an automobile factory will look at this familiar question with a rueful smile and say something like this:

"Last year I didn't give the right answer. Some other years I have done better. You always are a tough nut to crack, but I'm not ever going to be fooled again like I was in 1923-1924.

"When I guessed wrong last January, it made a lot of grief for my dealers, cut down profits all along the line and brought on a whole raft of merchandising troubles. From now on I'm going to do less guessing and more analysis beforehand. I'm going to watch the trend of business very carefully from month to month and I'm going to plan my production on a basis as conservative as possible in view of my factory capacity."

With these sage observations—or something very like them—and with these major problems before him, probably he will rise from his swivel chair, take off his coat, hang it on the costumer in the corner, and then, sitting down at his desk again, remark to no one in particular, "It's kinda good to be back after all."



Complete Gaging System Fosters Pride in Maintaining High Quality

Every individual in shop is sold on benefits derived from accuracy in work made possible by exceptional tools for checking all parts manufactured in G. M. C. truck plant.

By W. L. Carver

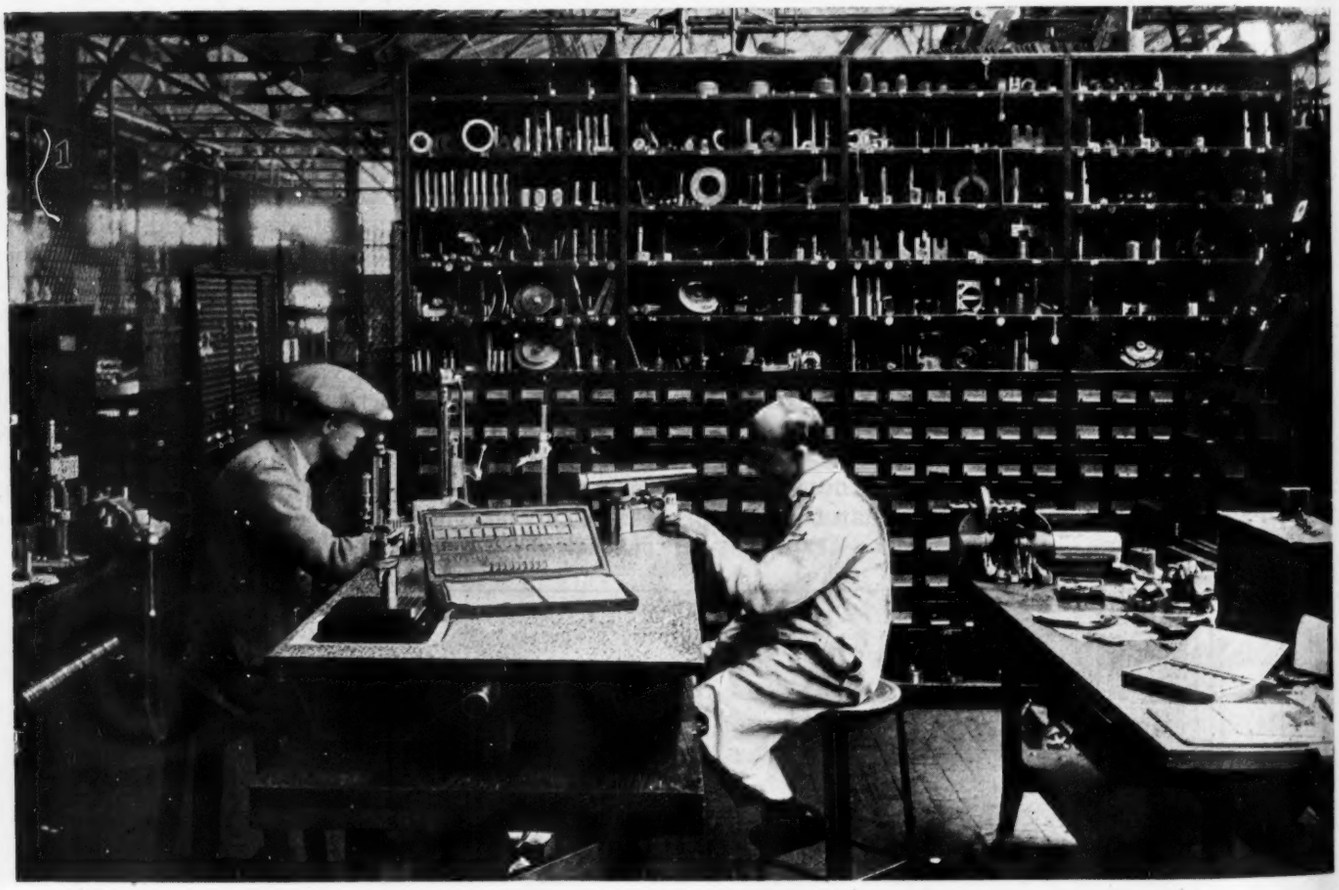


Fig. 1. A portion of the gage checking room which is an important part of the inspection system

COMPLETE inspection which has been sold to the entire shop force is responsible for the continued maintenance of quality at the plant of the General Motors Truck Co. Not only are the physical provisions of an unusual nature, being marked by their thoroughgoing characteristics, but the enthusiasm of machine operators and their pride in work which conforms to the exacting standards of the gaging system is most unusual.

In current business terminology, every individual in the shop has been sold on the benefits of accurate work not only as a means of protecting the production department and the individual but as the contribution of that department to the excellency of the product and the reputation and success of the entire company.

Contrary to casual opinion, the standards and limits of accuracy in truck manufacture, at least in this particular instance, are not lower than those of high grade car production. In fact, the executives feel that any measure of success is dependent upon the maintenance of rigid accuracy, as the service required of the truck is more severe than that of the passenger car.

With the growing tendency toward more rapid highway transportation, similar speed requirements are common to both lines when the lighter truck is considered, and the load element is much greater in the case of the truck. In the heavier field, the severity of service and the heavy loads imposed not only warrant but require accurate relationship of parts for the insurance of continued performance.

Following this idea, dimensional gages are provided for each part. Snap and plug gages of the go and no-go variety are used for detail dimensions. Dial indicating gages and master gages check the relationship of different surfaces and finally functional gages which define all of

the essential dimensional requirements of the piece in actual service are utilized for final inspection. All of these gages are checked constantly by the most improved equipment which is kept in the gage checking room, a portion of which is shown in Fig. 1.

Johanssen gage blocks, master thread gages, match surface plates, taper gages, optical and other types of accurate measuring devices are typical of the equipment of this department. Duplicates and gages not in use in the shop are stored in this department. Gages in use are issued upon checks which serve as guides for the gage checkers.

Dimensional Gages

Fig. 2 illustrates the dimensional gages which are applied to the production of a rear axle drive shaft. For the large diameter at the tapered end and the diameter of the splined end before that operation is performed, adjustable snap gages are used. Hardened and ground ring gages, go and no-go, check the completed splined end and snap gages check the depth at the bottom of the splines and the width across each individual spline. A slip ring gage is used on the taper and an adjustable thread gage on the thread at the outer end. The width of the keyway is checked by a plug gage and the parallelism of the bottom of the keyway with the adjacent surface of the tapered end is checked by a snap gage.

A sidelight on another means for maintaining accuracy on work of this character is illustrated by Fig. 3, which shows the hobbing operation on the splined end. One dial gage is fixed from the over arm of the machine, the contact point bearing on the big diameter of the splined end as it rotates. Another dial gage is fixed to the base of the machine and bears on the over arm. This second gage indicates any possible deflection in the machine proper which will affect finished accuracy, while the first gage checks the chucking and rotation of the work in process.

Gaging equipment for the two members of the multiple disk clutch is illustrated by Fig. 4. For the internal member, a master fixture equipped with a fixed center and dial gages checks several of the important dimensions while a master plate fitted with six blocks checks the spacing of the slots for the six permanent keys. In turn each of these key slots is checked individually for width and the spacing of the attachment holes. Go and no-go gages check the taper for attachment to the clutch shaft and the relationship of the keyway. Adjustable snap gages are used for the external diameters of both parts.

Teeth which are cut in the external member for the

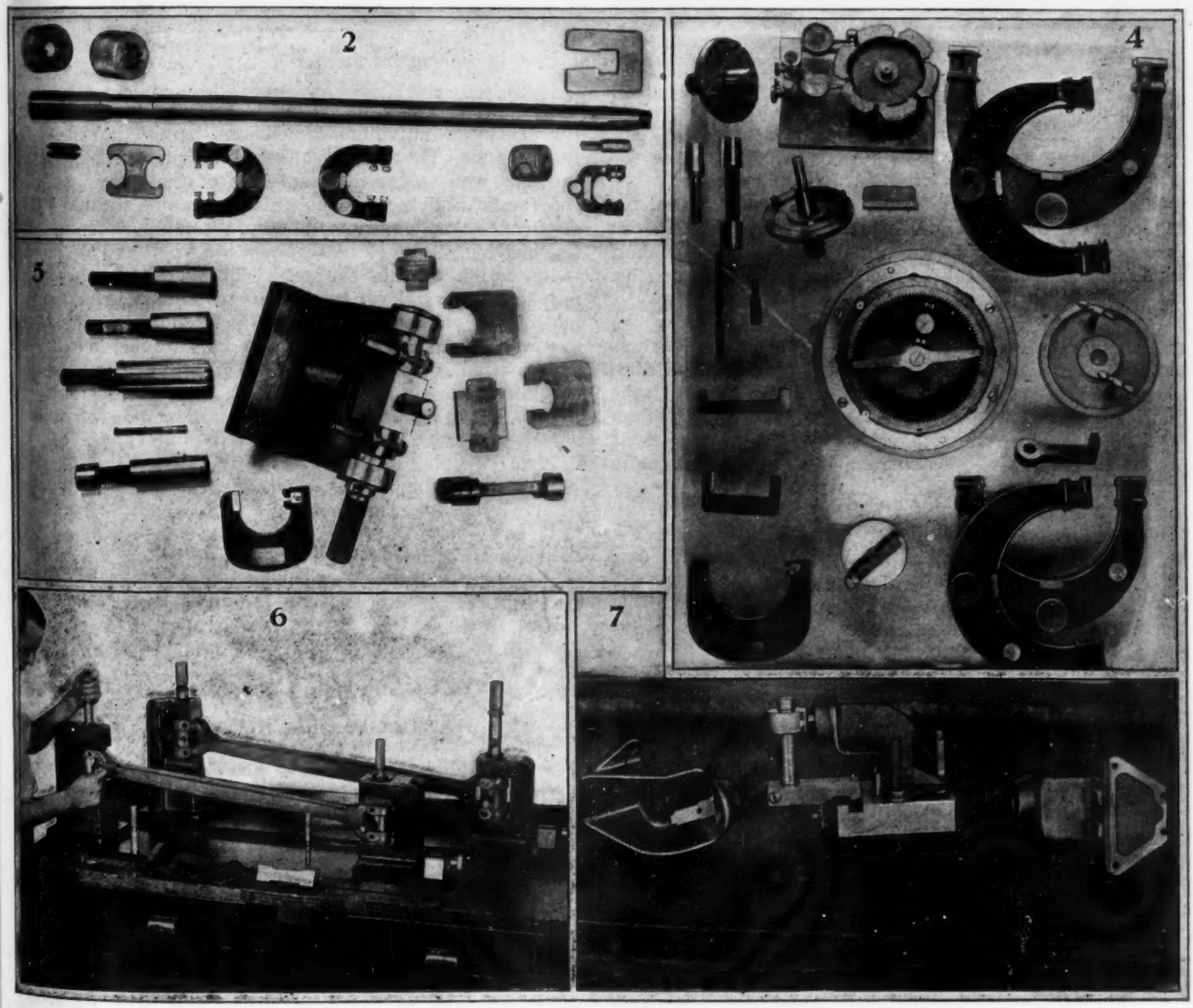


Fig. 2. Dimensional gages for rear axle shaft production. Fig. 4. Dimensional and functional gages for parts of the multiple disc clutch. Fig. 5. Gages which make for extremely accurate universal joint yoke production. Fig. 6. Functional gage for radius rods with some of the incidental dimensional gages. Fig. 7. Functional gage equipment for rear engine support bracket

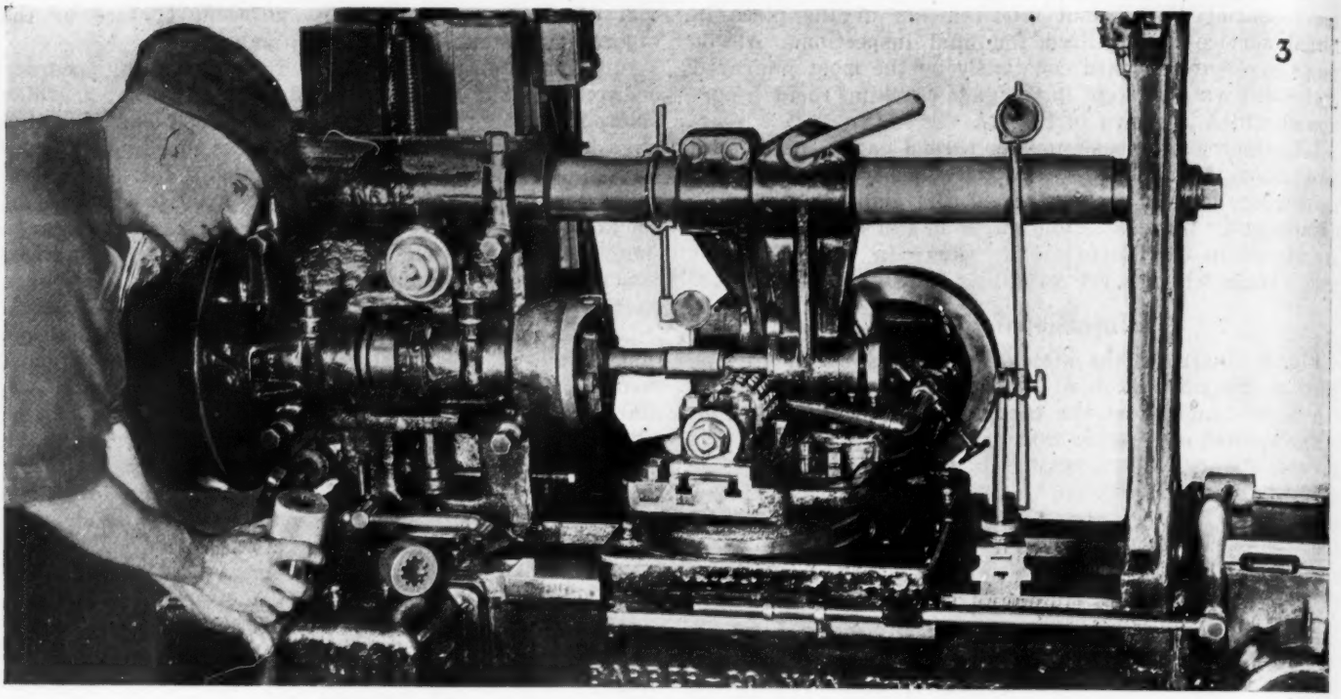


Fig. 3. Novel application of dial gages to hobbing operation

accommodation of the teeth on the clutch disk are checked individually if required and also by a master ring gear. The spacing of the bolt holes for attachment to the flywheel is checked in the ring fixture which centers the tooth checking equipment. Small plug gages are used for the operation and all eight holes are required to be in correct position with no shifting of the clutch member. Snap gages also are used for checking the various lengths.

Clutch Tests

Following the inspection of this equipment, the various members of the clutch are assembled and then the complete unit is passed to a specially equipped speed lathe which is located in the inspection department. Clutch disks must engage and slide freely in any position as regards the teeth and keys on related members and finally the entire unit is tested for free action and proper engagement and release.

Of outstanding interest is the functional gage for the universal joint yoke which is illustrated with the various incidental dimensional gages by Fig. 5. The usual snap and plug go and no-go gages as shown, are used to check each of the important dimensions and then the piece is placed in the fixture shown, being set upon a standard spline shaft end. A block which is within the limits of the central universal joint member is placed between the two ends of the yoke and a mandrel is slid through, passing through the two supporting bearings of the fixture the two ends of the yoke and the central block.

When this portion of the inspection is completed, a plug is inserted into the top of the block at the center, passing down through and indexing the mandrel and extending into the shaft end which is part of the fixture. Small plugs are then inserted in the clamp bolt holes in each of the ends of the yoke and are required to pass through grooves in the mandrel which simulate the grooves in the bushings that form part of the complete assembly. A study of this process with an analysis of the equipment and the surfaces controlled will demonstrate that this piece is held to an accuracy comparable to that of aviation engine practice.

Similar equipment for the inspection of the radius rods is illustrated in Fig. 6, the incidental snap and plug gages for checking individual dimensions being shown in the foreground. The length, offset and trueness of all surfaces as well as the detailed sizes of the forked ends of the radius rods are all checked in this one fixture which duplicates the conditions of the assembly floor and the finished job.

Inspection of this character on any one part of this nature commits the organization to similar inspection of all related parts including the most difficult factor, the assembled frame. This fact was borne out following an examination of the functional gaging equipment for checking the rear motor support bracket as illustrated by Fig. 6. The same thorough-going demands of dimensional accuracy and relation are characteristic of this fixture.

An examination of the equipment for this part and the radius rod raises the question as to why it is necessary to be so fussy with parts which are to be riveted or bolted to structural members that ordinarily are allowed a rather wide range of dimensional accuracy. A visit to the head end of the assembly line where the frames are assembled demonstrates that the inspection policy is not confined to the machine shop.

Frame Assembly

Frame members first are bolted togther in fixtures that determine the relationship of the various structural parts. After riveting, master jigs are clamped onto the frame and holes for the installation of various units such as the engine, radiator, spring and radius rod brackets are drilled in definite relationship to each other and the entire frame.

A similar policy of careful inspection prevails in the final test department which contains complete rear wheel drums and electric dynamometer equipment and provisions for carrying the load on the truck during the inspection run. A complete history of the characteristics of each truck is made in this department and retained in the service records of the company. Full details of the equipment and routine of the final testing department have been covered before in AUTOMOTIVE INDUSTRIES.

An examination of the inspection facilities of this plant during an idle period would fall far short of demonstrating the thoroughness of the inspection routine. Complete as the equipment is, with detailed dimensional gages and functional gages for practically every part of each model, it is overshadowed by the mental attitude of the shop force. The completeness of the equipment probably has much to do with the mental attitude, but more than this, every man in the shop is apparently convinced of the desirability of utilizing the checking means at hand for the continued production of correct pieces. In fact, the general idea in this shop seems to be, "We will make this stuff exactly as the engineering department has specified. Then it is up to them if it goes wrong."

Plug Gages

In more than one plant, men will be found who quietly hide a plug gage or cover it with a piece of waste or a rag when the big boss comes along with the hope that, as he can not see the gaging equipment, he will forget to stop at that station. In this plant, the moment an interested spectator comes along, the man at the machine will quietly rub off his snap gage or other inspection equipment and see that it finds it's way some where near the visitor's hand and some finished pieces.

Naturally, this pride in accurate work is but one part of the man's understanding of his job. In many plants, the question, "How many today?" is about the only one that will get an intelligent answer from the average machine hand. He has no idea of where the part he is working on goes or why certain limits of accuracy are desirable or have any bearing on the financial welfare of the company and consequently himself. Any question as to speeds or carriage feed is Greek to him. The boss set that and the inspector says that pieces like this will pass.

The difference in this case is demonstrated by several different operators. For example, Fig. 8 illustrates an unusual application of an air drill to the traverse of a milling machine table. In this case the air drill is utilized for returning the table to the loading position after a rather long cut over a large piece. Upon being questioned as to table speeds, the operator promptly replied that the table returned at a speed of 150 f.p.m. and also was able to state the increase in production that followed the installation of the air drill.

A similar installation of an air drill to the milling machine illustrated in Fig. 9 brought a similar understanding of the characteristics of the job. In this case, the operation is intermittent, the operator handling this machine in addition to two others. The air drill is connected by gears to the table feed screw and the power operation is utilized for both feed and return. The taper flats on clamping bolts are milled by a formed cutter. The operator loads the vice and operates the clamp handle with his right hand and handles the valve on the air drill with his left. When questioned, he stated that his production was 17 pieces per min. and also supplied the table speeds.

At a turret lathe in another part of the shop, the operator had placed a dial gage on the turret for determining the final position of a taper reamer in finishing clutch hubs, stating that he could get materially better production by the application of some means to insure accuracy without having to stop the machine repeatedly to bring the hole to the established close limits.

While the application of a dial gage to a machine is in itself a simple thing, the operator's appreciation of close work and his pride in combining it with high production are by no means usual and indicate that something more than the ordinary automobile shop atmosphere prevails.

Pride of Work Not Built in a Day

Interest of this kind is not to be obtained in a day, but will follow a consistent selling campaign in which the consideration of men is given as much attention as that of equipment. With the rapid growth of automotive

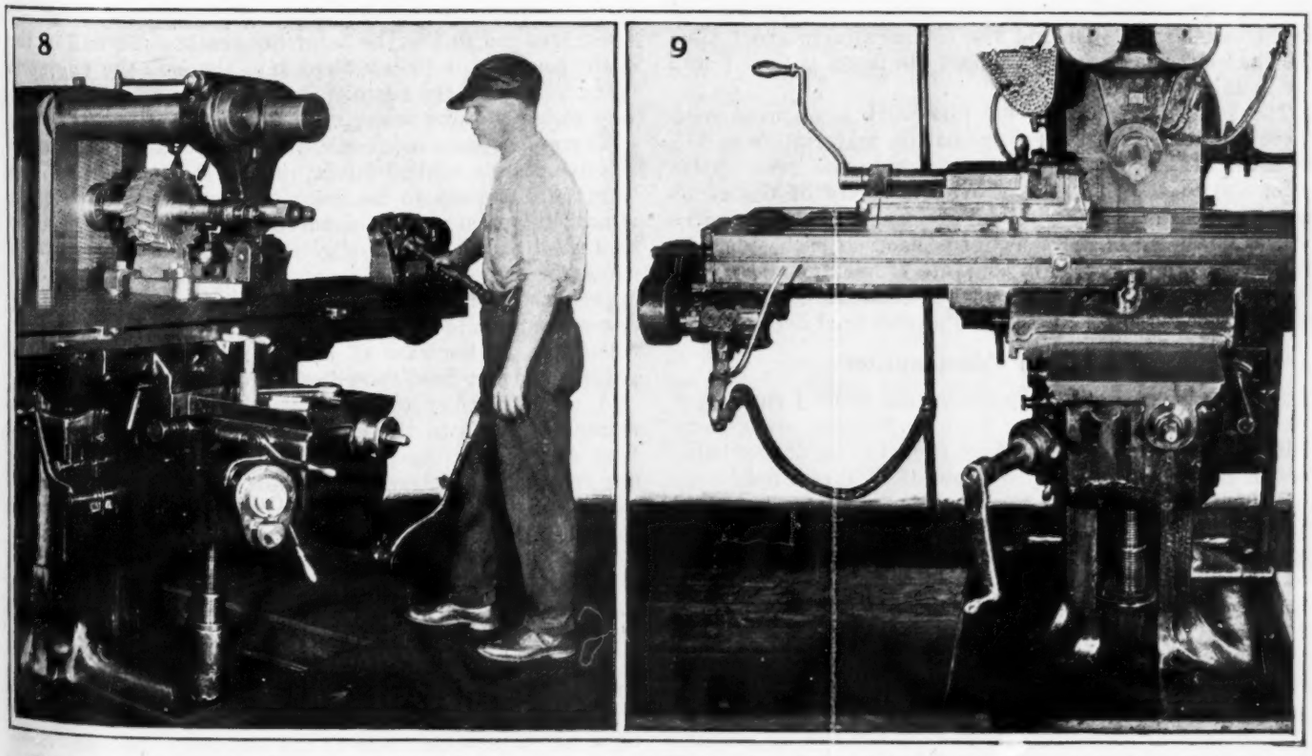


Fig. 8. Unusual application of an air drill for the rapid return of a milling machine table. Fig. 9. Another application of an air drill which is used for both feeding and returning the table

production, many executives have been prone to regard the man as a nonentity and concentrate on development of equipment. Consequently, the man becomes only an erratic non-thinking piece of equipment that can not be bolted down and with no pride in his work, his job or his company.

Development of interest and pride in this case has set up a cycle in which labor turnover has become a negligible factor. In the first place the company stayed with the man and gave him some idea of what it was all about. Between the two of them, pride in doing things well was developed. When a man has some pride and enthusiam in his job, he tends to stay with it and developes not only his work, but himself and is not prone to jump out every time the boat rocks a bit.

Consequently, the labor turnover problem takes care of itself automatically and the process comes near developing real mechanics who are already almost an extinct species in the automotive industry. A policy like this which starts with equipment well thought out followed by an equivalent amount of attention to the man's appreciation of the "why" of such equipment very well can be contrasted to some of the high-flown and futile welfare campaigns of a few years back.

Uses of Gas in the Automobile Industry

SOME of the uses of industrial gas in the automobile industry are described in an article in *Industrial Gas* by A. B. Greenleaf of The People's Gas Light & Coke Co. of Chicago. To meet the growing demands of the industrial community of the Calumet region, where the new Chicago plant of the Ford Motor Co. will be located, a new 12-in. high pressure main has been laid in Torrance Avenue, extending from 110th Street south to the city limits. It is estimated that this service will replace one train load of 40 cars of coal or 14 tank cars of oil per day, and an incidental advantage to the community will be that the atmosphere will not be soot-laden to the same extent as formerly.

The examples of the use of gas described in the article are taken for the most part from the plant of the Yellow Cab Manufacturing Co., which consumes 25,000,000 cu. ft. of gas per year. When the chassis is assembled (which is done on a chain conveyor) a couple of painters give it a coat of black japan; it is still on the line and many additional parts, including the body, must be put on. The track leads through a tunnel type japanning oven, about 125 ft. long, with a row of gas burners on each side of the greased rails. During the comparatively short time the chassis remains in this tunnel the japan is baked onto the metal.

The standard appliance for this work is an oven with sheet iron walls, with heat insulating material from 1½ to 2 in. thick. The temperature inside the oven varies from 300 to 450 deg. Fahr. The majority of the ovens are direct fired, having either atmospheric pipe burners or soft blast tip burners near the floor on each side. In others the gas is burned in separate compartments so that the products of combustion do not come in contact with the work. These are known as indirect-fired ovens.

Gas Oven Consumption

The average gas consumption is said to be 1 cu. ft. per cubic foot of oven space per hour on 350 deg. work, with a direct fire. In an indirect fired oven 1½ cu. ft. per cubic foot of oven space should be allowed. A direct-fired oven for 600 deg. work, as used for tempering springs, will also require 1½ cu. ft. per cubic foot of oven space. These figures hold good in charges of average light weight, such as sheet iron parts and light castings, Mr. Greenleaf states. For heavy work, over 1 ton of charge on a floor area of 100 sq. ft., an allowance for heating the extra material must be made. The time of baking varies from one to three hours by the different methods.

In the japanning of automobiles and automobile parts no item is of greater importance than the baking process. The factors which require careful control in order to insure a hard, elastic and durable finish are:

1. Time of baking.
2. Temperature of baking.
3. Temperature gradient.
4. Uniformity of temperature.
5. Condition of air in ovens.

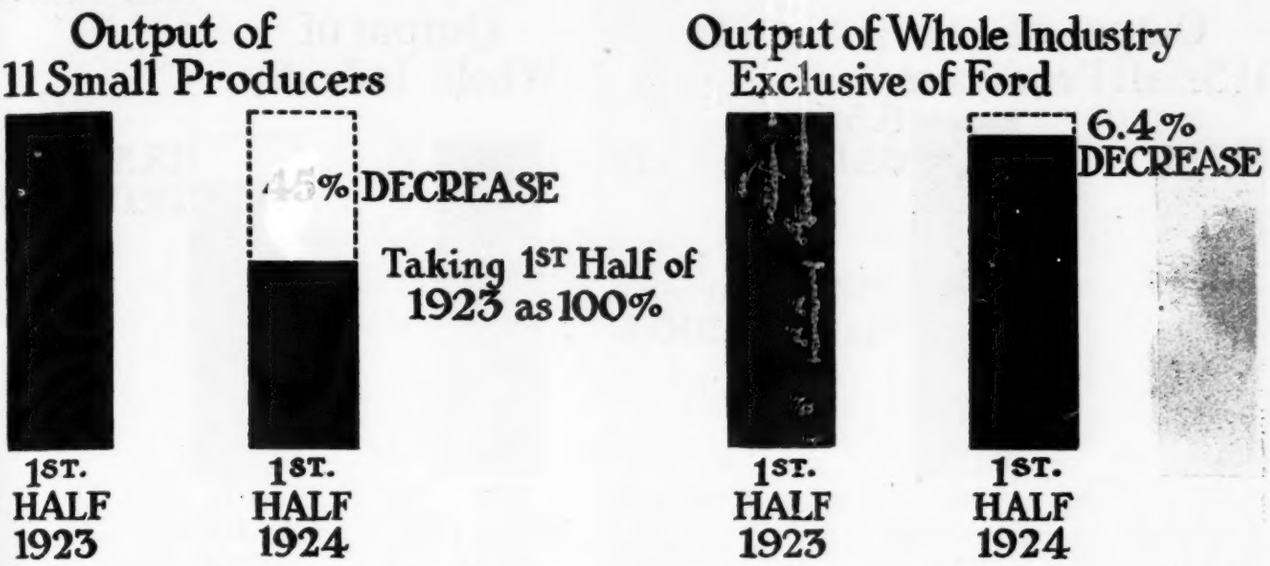
The reason for the use of industrial gas for the drying and baking of the japan while the unfinished car is being assembled is said to be that it can be controlled with great ease. The temperature in the ovens can be kept at the most favorable point for drying; there is said to be no danger of fire, and no labor is required to keep the ovens in operation. Furthermore, there is no danger of interruption of the baking process due to any causes having to do with the fuel.

In Case of Delay

If the line is stopped for any reason, the gas flame can be lowered instantly and turned on full again when the chain starts moving. When the chassis emerges from the tunnel, workmen are ready with parts to complete the assembly. The body is dropped in place by a crane and securely fastened by a couple of workmen with air wrenches, and finally the assembly reaches the end of the chain conveyor, a driver steps into the car, the engine is cranked up and the completed machine runs off the skidway under its own power.

There has been a good deal of discussion as to the relative merits of the direct and indirect systems. The direct fire is said to be the most popular and to be in almost universal use in the automobile industry. It might be feared that the vapors given off by the japans would cause an explosion, but according to Mr. Greenleaf this apprehension is unwarranted. Should any inflammable gases accumulate they would be burned quietly as they collected. In the case of an indirect-fired system these gases could not be disposed of as they accumulated.

A great number of sheet metal parts, most of them stampings, go into the automobile. These stampings as they come from the press are covered with grease, and the grease must be removed before the japan can be made to adhere to them. For small parts not exceeding 24 in. in width, a continuous gas-fired washing machine is used. An endless belt travels from one end of the washer to the other. The steel parts are held in an upright position by means of wooden racks. Upon entering the washer they are subjected successively to a spray of hot water, a spray of cold water, a jet of steam and a blast of air. Finally they go into the drying zone and emerge at the discharge end clean and ready for the japan. The steam is supplied by a gas-fired steam boiler; the hot water in some cases is supplied by gas-fired heaters, while the drying is done by direct fires above and below the racks.

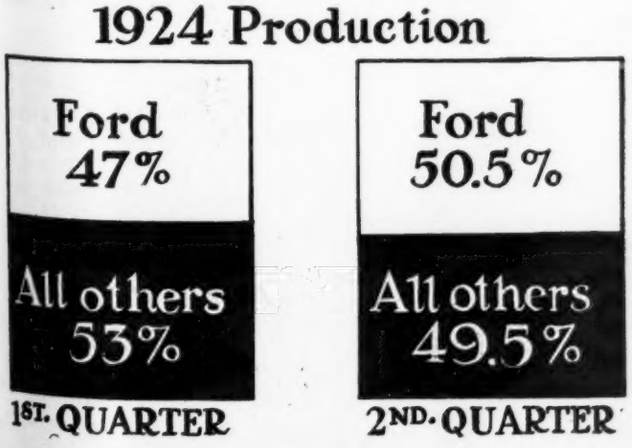


Small Makers Record Gains in Production During Depression Period

Output increased in second quarter by eight smaller companies while industry as a whole curtails schedules. But same group is much farther behind 1923 record than are large producers.

"THINGS aren't always what they seem." The total production figures for the industry as a whole give a very good indication of automotive economic trends, but they don't tell the half of it, as Mr. Gallagher used to remark to Mr. Shean. The production progress of individual companies this year has been very different from the trend of the industry as a whole. Never has it been harder to find a single manufacturer whose production record corresponded to the average for the industry as a whole.

See what happened in the second quarter this year. The average monthly production for April, May and June fell below the average for the first three months by about 48,000 vehicles, while the total output in the second quarter was below that of the first by about 13.5 per cent. But output among some of the big producers dropped off as much as 25 to 40 per cent. Only a few companies among the large concerns held their production even with the first quarter or increased it slightly.



The progress made by some of the smaller producers in the middle price class was an outstanding feature of the records made in the second quarter of 1924. Many of the larger car builders were forced to curtail their production materially in April, May and June to permit dealers to move accumulated stocks, but many of the smaller companies apparently found their retailers in better condition as summer approached so that they were able to step up their schedules. The total number of automobiles put out through these increases among smaller manufacturers was not great, of course, as compared to the total production of the industry, but they seem to indicate one or two rather significant facts.

Smaller Factories Did Not Force Dealers

It would appear that there was less forcing of cars on dealers by the smaller factories than by some of the more powerful units in the industry. This doubtless was due in part to the fact that the smaller manufacturers are not in so good a position to dictate quotas to retailers, but the result, at any rate, was favorable in this particular instance.

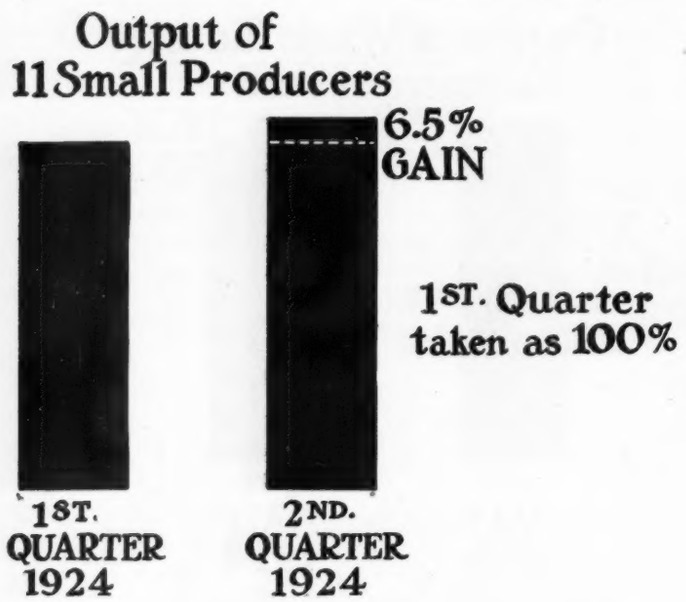
Average monthly production has declined steadily since the first quarter. The records show the following:

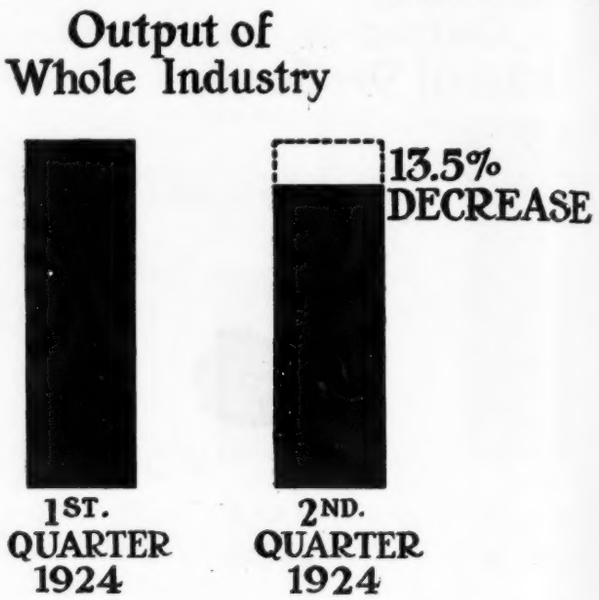
Average Production Per Month

First quarter	355,500
Second quarter	307,300
July-August	265,676

While total production was slipping off more than 13 per cent, a group of eleven manufacturers in the middle price group, none of whom built a total of more than 2000 cars, increased their total output in the second quarter by 6.5 per cent. This wasn't a great gain, to be sure, but it was a gain—a gain which is noteworthy in view of the general trend of the industry as a whole.

Out of this group of eleven, eight built more cars in





the second quarter than they did in the first. Three followed the course of most of the big producers and recorded a slump in output. One of them showed an increase of over 100 per cent, while two of them pushed up their schedule by 50 per cent. One of the larger companies in this group of small producers is responsible for pulling down the average increase for the group. Its production fell off 30 per cent.

It would be foolish, of course, to attach too much significance to the trends shown in these figures covering so limited a time. The reasons for curtailment among the big producers are well known in the trade, as in the fact that they are almost certain to come back strong in the long run. It is interesting to note, however, that some of the organizations, which are of minor importance from a volume output standpoint, were able to make gains during a period of relative depression. They did this despite the fact that some receiverships and bankruptcies have been recorded among manufacturers with cars and organizations of the same general character and size.

First Six Months' Figures

For the first six months of 1924, however, the production of these same eleven companies did not compare so well with the same period in 1923 as did production for the industry as a whole. All manufacturers, exclusive of Ford, built only about 6.4 per cent less vehicles in the first half of 1924 than in the first half of 1923. The eleven small makers in the same period slipped off about 45 per cent as compared with last year.

Their relatively weaker position from this standpoint does not alter the fact that they were able to do fairly well in the second quarter of 1924, considering the depths to which they fell in the first three months.

Another fact revealed by the detailed six months' production figures is that Ford held up better in the second quarter than did the rest of the manufacturers taken as a unit.

In the first quarter Ford passenger car output comprised only about 47 per cent of the total, while in the second quarter his share jumped to just a little over 50 per cent.

THE committee of the Society of Civil Engineers (France) recently recommended the adoption of the abbreviation Ch. for horsepower and ch.h. for horsepower hour, in place of the English abbreviation H.P. formerly used.

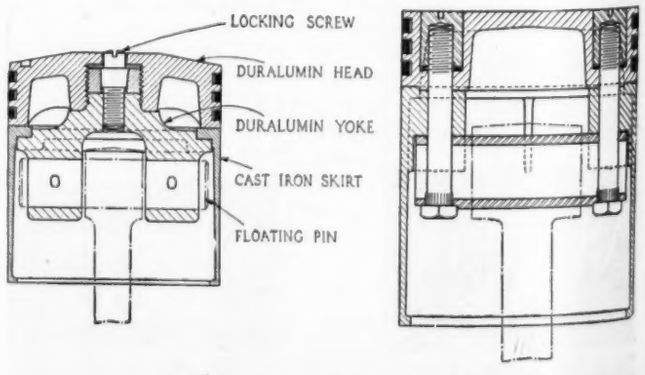
New Type of Piston Invented

OSCAR P. LIEBREICH of New York City has invented a type of piston for internal combustion engines which makes it possible to withdraw the piston from the engine at the top without opening the crankcase. This has been found to be a desirable feature in certain cases where motor trucks are being used in excavating and similar work, where the atmosphere may be very dusty, with the result that either the piston skirt or the rings or both wear out in a short time. The design of this new piston, which is to be marketed as the "Q. D.," permits of quickly renewing either the skirt, the rings or any other part if this trouble should occur. A patent has been applied for.

Two different designs are illustrated herewith. The first consists of a duralumin head, a cast iron skirt and a duralumin yoke in which the piston pin floats. The skirt is formed with an inward flange at the upper end by means of which it is clamped between the head and the yoke.

The yoke is formed with a central threaded boss at the top which screws into the head, the joint being locked by means of a taper pin with threaded extension, the taper spreading the upper part of the boss on the yoke, which is slotted. All of the rings are located in grooves in the aluminum head.

In the second design the yoke is dispensed with and the duralumin head, cast iron skirt and steel piston pin are held together by means of two cap screws with cap nuts located in recesses in the piston head.



Two forms of the Q. D. piston

Britain Buys Small Cars from Necessity, Not from Choice

Automobile had to be fitted into a social structure already in existence. It has not had great part in community building as in United States. Future British market greater than past.

By Harry Tipper

THOUGH less than New York State in area, England has a population equal to half that of the whole United States. Houses are built side by side, frequently attached so that often there is not even a passage for pedestrians between them. This type of construction is common throughout the country in all of the industrial centers. Since so great a proportion of the population is gathered in the industrial centers, and in this type of dwelling, and since there is very little space for building even at high ground rentals the problem of storage and garages has to date defied solution. Consequently, certain less congested districts offer the more promising fields upon which to concentrate car sales effort in England.

WHEN the automobile came into use in Great Britain, it entered a country where the social structure and habits of life were pretty well fixed.

The country is small. Though less than New York State in area, it holds a population equal to half that of the United States. The main portion of its industrial system was built with the railroad as the principal distributing arm, with wagons for short haul, trolleys for passenger traffic, and with the old canals dealing in slow freight.

Towns and villages had grown up for centuries without any revolutionary changes. Only a small percentage of the total structure has been built since the advent of the automobile.

Railroads, trolleys, factories, factory equipment, building, etc., all show the differences created by the endeavor to weave new devices into the fabric of an organization already in substantial and fairly complete form.

Habits of trading have been affected in the same way. A company starting business in the seventeenth century and continuing down to the present day without radical change shows a constant endeavor to fit new ideas into the existing structure. New methods and products displaced the old, but became materially altered themselves in the process of adaptation. Old habits in giving place to new impressed some of their own characteristics upon the improvements.

The automobile as a product, therefore, and the automobile industry as a business have been obliged to adapt themselves to a structure and to habits so well established and so complete as to present many obstacles to its rapid progress.

It is necessary to remember that the great industrial expansion of Great Britain occurred before the advent of the automobile. Rows and rows of houses built of brick and stone, lacking many comforts which Americans might consider the necessities of modern life, comprise the principal residential areas of most of the cities and even the villages in Great Britain. Such conditions cannot be changed all at once. These structures cannot be torn down, rebuilt or abandoned except gradually—one by one, as opportunity arises. Particularly is this the case with a growing population somewhat inadequately housed and with costly land hampered by ancient laws and entails.

Roads, alleys and streets can be widened and altered only with difficulty and with an enormous expenditure. Along with all other modern devices, the automobile has been obliged to adapt itself to these social conditions and the strong habits of a people which has retained much of what existed in order to keep an economic foundation for the development of the most necessary improvements.

Nothing illustrates this fundamental condition more effectively than the persistence of the older methods side by side with the new. In the same city, in the same business, different concerns are operating factories some of which were constructed over a hundred years ago and a few of which have been built in the last ten years.

In addition to these physical conditions which themselves make it more difficult for the private owner to operate an automobile conveniently, the conservation which is necessary to maintain industry, retain wealth and pay the enormous national obligations, has developed a habit of conservatism in buying which adds to the difficulties imposed by the actual surroundings. Whether a man can buy an automobile and use it in England is not, therefore, a matter of money alone, but also a question of how and where it can be housed, attended to and conveniently operated in his actual surroundings.

The passenger automobile is not an important vehicle of transportation in Great Britain as yet. It is still used mainly for the pleasure of the owner. The newer residential sections of the large cities are being built with some attention to modern requirements and are not so strictly concerned with proximity to fixed lines of transportation. These new developments form a very small proportion of the total, so that the bulk of the population lives under circumstances which make the ownership of a car a matter of some physical difficulty.

It is true that new roads are being constructed especially suitable to modern highway traffic and that the commercial vehicle, whether steam, electric or gasoline, has a large place in the distributing system in Great Britain. It is evident, however, that the character of the automobile trade, its extent and its methods must be affected for many years by these general conditions.

The number of cars in Great Britain is about 400,000,

which means that there is one car for every 110 to 130 people. As in this country, the large majority consists of the small, less expensive vehicles. This is particularly true of the present production of cars. Evidently, the future market must expand further into the general population if the production is to increase, the growth taking place in the same way as in the United States, although much more slowly.

These are the elements which have led to the production of the very small car in Great Britain and to the large development of the motorcycle. The motorcycle can be housed anywhere. It can be taken through the ordinary gateway, pushed into a tool shed or a scullery. It is inexpensive to run and it is taxed very lightly. The small car takes up a little more space, is not much more expensive to run, and the tax still is very light.

Large Cars Offer Difficulties

Larger cars, however, present more difficulties. In one small town of 15,000, which I examined very carefully, there is a little manufacturing and a large residential area with plenty of open space around it for development. The number of houses to which a garage could be added without much trouble is not more than one hundred. Even where ground space is sufficient, the gardens would have to be reconstructed, the gateways torn down, drives made and alleyways widened in order to accommodate a larger car. From some points within the town it is more than three-quarters of a mile to the nearest garage. Relatively the cost of storage and of service is high. The newer housing that is being undertaken in this town offers better possibilities for the ownersip of an automobile, but still it is difficult for people to find houses and the number of new structures is not sufficient to take care of the natural increase in the requirements.

Fundamentally the light car in England is the outcome of the social structure and the methods of taxation. Even if the tax were changed, it would not materially increase the number of large cars that could be sold until the new housing has reached much greater proportions than it has today. These facts are of great importance in considering the future growth of the market in Great Britain for the sale of American cars of the usual type.

It is comparatively simple for us to move, rebuild and expand our residential sections with cheap land and mainly wooden buildings, particularly as our great expansion has been in the last thirty or thirty-five years. It is a difficult matter to reconstruct houses built of brick and stone with a shortage already existing in the housing accommodation, with land values fairly high and with a complicated system of land laws and tenures.

Selected Markets

Certain sections of the population and certain parts of the country offer a most effective market for the American car. These sections and localities deserve a definite study, to determine the actual prospective growth in the next few years and consequently their powers of absorption of American cars.

The value of the good American cars from the standpoint of price and intrinsic comfort is obvious. The market is limited to particular sections of the population and localities, because the cars are suitable only to certain social surroundings and habits. Beyond that, the market in Great Britain is one which can be reached only by cars that are different in character from those required for our domestic business.

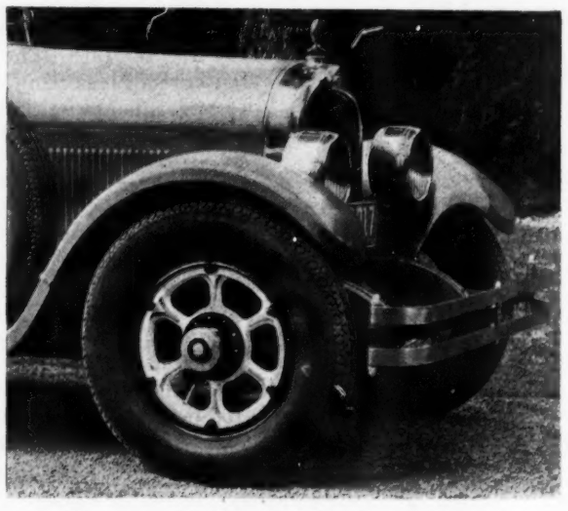
To secure a foothold and maintain a place in that larger section of the market which is conserved by the smaller and lighter English car, it will be necessary for the manufacturer to go into the export business as a permanent proposition with a definite program of development in the British market in competition with British and continental manufacturers.

It is not merely that the British are slow to adopt a new thing or that they are not as eager for the conveniences of life. The conditions are such that they must retain a great deal of what already exists, even though it is out of date and inconvenient, adding the new devices only as they can be adapted to these conditions and fitted into the developments.

The Manchester *Guardian*, in discussing the prospective market for automobiles in Great Britain, figured that the difficulties since the war had kept the buying down to a very low point much under the potential possibilities and that the returning prosperity which may arise out of the gradual settlements of European difficulties would increase the actual buying by 200 or 300 per cent.

I feel that this statement is conservative and that the present market is not the criterion of the future possibilities. To be ready, however, to take advantage of these possibilities, the American manufacturer should begin his work of studying the market and preparing his export program at this time so that he may have his foundation of good will, his organization and his methods established and modified in time to take advantage of the coming growth.

Built for Balloon Tires



Smith cast wheel for 20-in. base balloon tires

A CAST hollow spoke wheel for 20-in. balloon tires of 6.20 and 7.30 in. section now is being manufactured by Smith Wheel, Inc., of Syracuse, N. Y. This wheel is designed to take Firestone Type C rims of 29 x 4½ in. nominal size. It is made by the same process used in manufacturing other Smith wheels. After the wheel is cast it is expanded by a patented method which is said to eliminate all casting strains.

The new wheel is designed to take the same hub and flange equipment commonly employed with wood wheels, while the spokes are offset from the center plane of the wheel to afford more clearance for brake parts.

It is claimed that these wheels remain true indefinitely and that they are practically indestructible. The fillets and clean exterior make washing easier and give an attractive appearance.

It is planned shortly to place on the market a 21-in. wheel for Type D Firestone rims of 28 x 3½ and 29 x 4 in. nominal size and another 20-in. wheel for 29 x 4½ and 30 by 5 in. Type D rims.

Just Among Ourselves

Why People Go to—and From—Conventions

CONVENTION time is here again. The open season for silver-tongued orators and boiled shirts is just about to begin. The ancient assertion about "now in closing let me say . . ." and so on for the following two hours probably will be on deck, disguised a bit in its new fall clothes, but the same old stuff just the same. But the automotive industry is a fast moving business at that. It talks and acts quickly and decisively. A lot of people whose word is respected wherever automobiles are built or sold voiced a few pretty strong opinions on one or two occasions last year when some paper reader or other turned over the thirty-fifth page of his manuscript and only had his subject up to 1900 at that point. One man went so far as to say that there ought to be a national law against reading from manuscript before an audience for more than 30 minutes at a stretch.

Real Business Food Promised at Fall Meetings

BUT the prospects seem bright for exchange of some real information in double-quick time at the various trade gatherings this fall. The industry has before it a lot of vital problems and the topics to be discussed will be so live that there is little chance that dissertations will take the place of active discussions. The length of a speech cannot be measured in minutes alone, as any experienced convention attender will tell you. You've heard some men talk for two hours without realizing that they had taken more than fifteen minutes, while after listening to others for fifteen minutes you would have bet your other shirt that they had been under way as long as the Democratic convention when it reached its 100th ballot. It wouldn't do to take all these wallops at uninteresting speeches, though, without announcing in sincere and clarion tones that the automotive industry abounds in interesting speech makers who usually pour forth a wealth of live, interesting information. It has and we do.

Body Building Still Is in Transitory Stage

BUILDING bodies seems to be giving the production men more trouble than chassis manufacturing just at the present time. A group of prominent engineers who came together to lay out topics for the S. A. E. production meeting found that when it had completed the list most of the subjects suggested had a very definite bearing on body construction or materials. It's natural that this should be the case because body manufacture, despite the strides made in the last three years, still hasn't been refined to the extent of chassis production. Moreover, changes in body design have been quite frequent in recent months. This probably has resulted in making acute certain problems which otherwise might have been solved in the normal course of events without any particular haste.

Transmission Changes Being Delayed in Many Cases

IT begins to look as though the talk about radical transmission changes isn't going to have any material effect on 1925 models. A good many announcements already have come through and up to date nothing extraordinary is to be noted. One important company in whose new model important transmission changes had been expected, is coming through with a standard type again. The interest in unusual types of transmission, however, is based on a sound desire to improve an important unit in the car and seems certain to continue.

Trade Days May Affect Late Dinners

HOW will the two trade days at the New York Show affect the trade association dinners which are scheduled for the latter part of the exhibition week? This question is being asked by some of those particularly interested in the success of these functions. Their fear is that since the two trade days seem certain to be successful in interesting the men in the trade that these particular individuals will go home before the middle of the week. Only time will give the answer, which probably will depend on individual decisions in many cases, but it would seem that those social functions which are held early in show week have a better chance to break attendance records than have those which take place later.

"Never Again" Spells Defeat for Bad Policies

"NO more overloading dealers. Never again." Led by Mr. Sloan of General Motors, that is the chorus which manufacturers are singing. It's a good song. And the best part about it is that most everybody who is singing it has a sincere ring in his voice. It is to be expected, of course, that manufacturers and dealers will disagree in individual cases as to what does or does not constitute overloading, just as they will disagree in peak business times about what constitutes a fair allotment of cars. But there can be no doubt that a genuine wish to cooperate is growing both in factory and dealer ranks, and this desire can be futhered during the next few months if everyone involved will make a real effort.

N. G. S.

How Far Should Common Carrier Regulations Apply to Automobiles?

Protection of shipping, the traveling public and the public highways offer reasons for regulation, though monopoly and the restrictions necessary for railroads, etc., do not now prevail.

By Henry R. Trumbower*

WHEN the automobile began to be used as a common carrier, either as a jitney competing with city street-car service or as a bus between cities or as a truck carrying persons and property for compensation, it was recognized that this was a new type of public service. Cities first began regulating these new transportation agencies and subsequently State legislatures began passing laws which extended their jurisdiction and regulatory power to the motor vehicle operated as a common carrier in like manner as to the rail transportation service. According to an article by H. R. Trumbower in *Public Roads*, there has been considerable discussion as to the policy of extending a State's regulatory power to the motor vehicle. As yet there is no complete agreement on the subject and not all the States have gone so far as to regulate common carrier motor vehicles to the same degree as steam and electric railroads.

The principal arguments in favor of State regulation of automobile carriers may be summarized as follows:

That motor vehicles operating as common carriers should be regulated the same as other public transportation agencies and in that manner travelers and the shipping public could be assured regular, adequate, and efficient service including at the same time the highest degree of safety and responsibility.

That where motor vehicle common carriers are apt to bring about competitive conditions which are ruinous to other carriers, the State can determine what is to the best interest of the public in the long run and protect that agency which it is shown deserves protection and whose service is needed by the public.

That there should be placed upon the common carrier motor vehicle those duties and obligations which are commensurate with the benefits obtained from the public which furnishes the highway and allows it to be used for gain and profit.

To Protect Responsible Services

That public regulation is desirable in order to protect from irresponsible competitors those motor vehicle common carriers which have established themselves and are furnishing satisfactory service.

The attitude of those opposing this type of legislation finds its expression in the message of the governor accompanying the veto of a motor-vehicle regulation measure passed by the Wisconsin Legislation. He said:

"My objection to this bill is fundamental. Jitneys and buses may be operated by anyone upon the public highways and streets, and therefore there is no opportunity to create a monopoly.

"Free competition prevails, and thus rates and services are regulated by the natural law of competition. It is quite different with respect to a street railway, an interurban railway, or a railroad. When either of those occupies a territory, there is no opportunity for a competitive like system to come into that territory.

"There is a limitation on the number of street railways or interurban lines that may occupy the field of transportation, and so the transportation companies hold the field against all others; and the reason for regulating them is because of the fact that they possess a monopoly, affording them the right, in the absence of regulation, to arbitrarily discriminate, grant rebates and other special favors, charge an excessive fare, and give inadequate service.

Question of Monopoly

"The legislature, therefore, wisely provided for the regulation of such monopolies. The motor vehicles have come to stay; they are the beginning of a transportation system about which it is dangerous to prophesy. They may in the future be displaced by more modern systems of transportation. The old canal companies fought for their existence when the railroads came, but the building of railroads could not be obstructed merely for the purpose of preserving the canal companies. * * *

"I do not believe that it is any part of the State's duty to obstruct or hinder that means of conveyance. So long as the motor vehicles do not possess a monopoly, there is no ground for regulating them, except to protect the safety and health of the traveling public.

"To regulate them from the standpoint of protecting some other business is to interfere with free competition, not in the interests of the general public, but for the special protection of some specific business."

There is a certain amount of truth in the statement that public regulation is not necessary where monopoly conditions do not prevail. Regulation on the part of the Federal Government and the State governments was undertaken for the purpose of protecting the public against unreasonable rates and discriminatory practices which grew up under monopoly conditions. It seems, therefore, logical that when and if competitive conditions are restored regulation can be given up.

In this connection it should, however, be observed that the motor vehicle as a common carrier makes its appearance as a competitor in the entire field of transportation, including steam railroads and electric city and interurban railroads. To keep on regulating one form of transportation as to rates and service and allow the new type of competitor free rein without placing upon him any degree of restraint or responsibility is an unfair practice and will lead sooner or later to conditions which will be intolerable from the public point of view.

The public is entitled to adequate and continuous service at reasonable rates; unlimited competition on the part

*Excerpts from a paper published in "Public Roads."

of the motor vehicle with the common carrier which is regulated by the public will in the long run seriously affect the service and may force that type of carrier to curtail or abandon its service which is most essential to public needs.

At the end of 1923 there were 28 States which had adopted the definite policy of regulating motor vehicles engaged in common carrier service and through the State public service commissions were exercising control over the routes, service and fares:

Arizona, California, Colorado, Connecticut, Georgia, Illinois, Iowa, Maine, Maryland, Michigan, Montana, Nevada, New Hampshire, New Jersey, New York, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Dakota, Utah, Vermont, Virginia, Washington, West Virginia, Wyoming.

Cities Control Jitney Operation

Many of the cities exercise control over so-called jitney operation even though the State has not enacted any legislation pertaining to motor vehicle common carrier service on the public highways. There are also certain States which have not gone so far as to put automobiles carrying passengers and freight for hire into the public utility class which at the same time require such operators to carry liability insurance and give bonds.

As yet the Federal Government has not taken any steps to regulate automobile carriers although there are a great many who engage in interstate business. Where railroad companies have made arrangements to forward freight shipments by rail and motor truck the Interstate Commerce Commission has taken the position that the commission's jurisdiction does not extend to that part of the service carried on by motor truck over the highways.

The right of the State to regulate the activities of motor vehicles engaged in common carrier operation is well established; this is true whether the State does it directly through a regulating commission or through a city council which derives its powers from a charter granted by the State. The regulation and control of the jitney has been held by the courts to be a legitimate exercise of the police power.

Under the police power of a State the legislature may prescribe the number, character, routes, rates, and hours of service of common carrier vehicles on highways; this power can be delegated to a city council or to a public service commission.

In framing laws of this character it is necessary in the first place to name and describe definitely the type of motor vehicle and the nature of the service which is to be regulated and supervised by the State. The State of Washington has adopted a very comprehensive definition covering this matter.

State of Washington Jurisdiction

Its jurisdiction extends over all "auto transportation companies" and these are defined as "every corporation or person, * * * owning, controlling, operating, or managing any motor propelled vehicle not usually operated on or over rails used in the business of transporting persons, and, or, property for compensation over any public highway in this State between fixed termini or over a regular route, and not operated exclusively within the incorporated limits of any city or town; provided, that the term auto transportation company, as used in this act, shall not include corporations or persons * * * in so far as they own, control, operate, or manage taxicabs, hotel buses, school buses, motor propelled vehicles, operated exclusively in transporting agricultural, horticultural, or dairy or other form of products from the point of production to the market.

One of the frequent questions which commissions and courts have to decide is whether or not a specific motor vehicle is operated in such manner so as to bring it within the State's regulatory powers.

An example of this came up in California. California commission held that a motor bus line, auto truck line, or auto stage line engaged in transportation for hire was not a public utility under the California act although it might be a common carrier. The State supreme court when the case came before it on appeal held that such motor vehicle lines were "transportation companies."

The Colorado Public Utilities act defines: "The term 'common carrier' when used in this act includes every railroad, corporation * * * and every other corporation or person affording a means of transportation by automobile or other vehicle whatever, similar to that ordinarily afforded by railroads or street railways and in competition therewith."

The statute of Maryland, which was one of the first States to regulate the motor vehicle as a common carrier, provided that the term "common carrier" includes all persons * * * operating automobiles and motor cars or motor vehicles for public use, in the conveyance of persons or property.

In New Jersey the commission has jurisdiction over and can regulate only those auto buses which operate over routes parallel to a street railway line or traction railway. The Ohio law limits the commission to a supervision of the rates and service and safety of operation of common carrier motor vehicles.

Public Utility Decisions

Public utility commissions in their decisions have taken the stand that street railways were entitled to protection up to a certain point. The loss in earnings of a street railway brought about through the competition of motor bus operation would result in preventing the street railway from securing the needed capital for extensions and betterments and the public would finally suffer.

In most cases it has been held that under the conditions existing in the larger cities motor-bus service can not be substituted wholly for street-car service because it would inadequately meet the public needs.

When the operation of common carrier motor vehicles comes into competition with paralleling steam railroads practically the same policy is followed as in the case of competition with street railways.

Commissions have uniformly held that where motor-bus lines are operating and giving satisfactory service they should be protected from competition.

Through regulations and the promulgation of rules the State commissions supervise the operations of motor buses; speed limits are established, provisions are made for all kinds of safety measures, rules of conduct and the hours on duty of drivers are definitely prescribed, the capacity loads are fixed, and all manner of precautions are taken for the benefit of the traveling public.

In none of the formal proceedings have any definite principles been established as to the maximum rate of return which should be allowed to this new class of common carriers and public-utility enterprises.

According to the information obtained from a number of State commissions which regulate the operations of all common carrier motor vehicles there is a tendency for the individual operators to be taken over by corporations organized for this purpose; consolidation of small operators is also noted. Large companies are appearing which control the routes in a given section of a State. The motor-bus business may pass through the same consolidation movement which took place in the early days of the street railway business.

Compulsory Insurance—How It Is Working in Switzerland and Denmark

Under the Swiss laws the driver and not the owner is civilly responsible for any injury and damage caused, consequently obligation to carry accident insurance lies with the driver.

By W. F. Bradley

TWO European countries, Switzerland and Denmark, have adopted compulsory insurance for automobiles. In other countries the proposal to make insurance compulsory has been discussed in a half-hearted manner from time to time, but it never has been felt that the public needed this additional protection. In France the only sound argument in favor of compulsion was that some of the smaller and unreliable taxicab operating companies avoided responsibility by going into the bankruptcy court when condemned to pay damages.

The present Swiss regulations consist of laws which have been adopted by all but two cantons. A Federal compulsory insurance law is now being proposed. Under the present Swiss laws no person can secure a Government license to operate an automobile until he has taken out a third party insurance policy for a minimum of 30,000 francs for injuries to one person and 100,000 francs for an accident to several persons. For a motorcycle the amount to be insured for is 20,000 francs.

The obligation to carry an accident insurance policy resides with the driver and not with the owner, because under the Swiss laws it is the driver and not the owner who is civilly responsible for any damage and injury caused. In many other European countries the driver may be held criminally responsible while the owner has to assume civil responsibility, even though he may be involved in no way whatsoever and even if the car has been used contrary to his orders.

Enforcing Driver Insurance

It is a comparatively easy matter to enforce the compulsory insurance law by reason of the provision that no person shall operate an automobile until he has been registered and has secured a license issued only after the applicant has undergone a practical and theoretical examination. Almost every European nation requires its automobile drivers to be registered with the police, and practically all, with the exception of England, insist on a practical examination by Government inspectors before a car can be operated on the highway. It would appear difficult to make insurance compulsory unless some system of registering and examining drivers were in existence.

Under the Danish law, which went into operation on March 20, 1918, and was modified on May 6, 1921, the amount of the insurance policy must be 20,000 kronen for automobiles and 10,000 kronen for motorcycles. When the Danish kronen and the Swiss franc are at par the amounts to be assured for, therefore, at nominal exchange are $20,000 in Switzerland and $4,000 in Denmark.

While Swiss automobile owners have accepted compulsory insurance without much opposition, and are willing to admit that it generally operates equitably, they are convinced that it is a piece of class legislation full of dangers born out of prejudice against a new method of locomotion. Switzerland never has been very liberal in its treatment of automobile owners and even at the present time the interpretation given to traffic laws and to questions of responsibility in case of accident often is biased in favor of the horse-owner and the pedestrian.

Determining Responsibility

The question now troubling Switzerland is not one of compulsory or optional insurance, but the basis on which responsibility shall be determined. Under the law as it exists at present responsibility is involved if intention, negligence or imprudence can be proved, and the burden of the proof lies with the claimant. It is now proposed to change this for what is termed "casual responsibility," as it exists in the case of railroads. Under this proposed law the automobile owner would be held responsible for all damage done by his vehicle without it being necessary for the claimant to prove intention, fault or negligence on the part of the driver.

This law, which is being pushed forward on the plea that the automobile owner is legally bound to carry a third party insurance policy, is being strongly opposed by Swiss motorists, for its immediate result would be to cause insurance premiums to increase 50 per cent. The argument that the automobile owner should be considered similar to the railroad will not bear close examination, for the railroad has a privately owned track and its own regulations which considerably attenuate its legal responsibility.

For instance, if it can be proved that the victim of an accident has acted contrary to the rules drawn up by the railroad company, their responsibility is not involved.

Under this proposed law a cyclist who rushes down hill without brakes on the wrong side of the road and collides with a car coming up hill at a moderate speed on its right side of the road, could claim damages from the automobile owner. The owner of a dog could claim compensation if his animal rushed at an automobile and was killed by it. The motorist would be responsible for the resultant damage if he caused a horse to bolt; but the horse owner could escape responsibility by proving that he had taken reasonable precautions to prevent his animals breaking loose.

Responsibility Should Be Defined

Compulsory insurance having been accepted as a necessary evil, Swiss automobile owners insist that their responsibility should be limited and clearly defined. In place of the proposed law which holds them responsible for all accidents, they claim that the following should be substituted:

"If, by reason of the use of an automobile, a person is

killed or injured, or material damage is done, the owner of the car shall be held responsible unless he can prove that the accident is due to the fault of the injured party or a third party, or unless he can show that he or his driver has taken all reasonable care in view of the circumstances and that all their efforts have been incapable of preventing the accident.

"If the automobile has been used by a third party without authority, and without any fault of the owner being involved, the third party shall be held responsible in place of the owner.

"If the owner has caused an accident by his fault conjointly with the injured party or a third party, the common law on illicit acts will be applicable.

"When no fault can be imputed to the owner, to his driver, to the injured party or to a third party, the judge can, on equitable grounds, and if the circumstances justify it, condemn the automobile owner to partial or total reparation."

Swiss motorists are convinced that insurance companies have taken advantage of compulsory insurance to increase their rates, but as so many other factors, due to changed economic conditions, are involved, it is difficult to say whether there has been abuse. From an international standpoint compulsory insurance is complicated and unsatisfactory, for while the law can be rigorously applied to Swiss citizens, it is difficult to make foreigners entering the country with their cars take out an insurance policy for the short time they are present. This applies in a particular manner to Switzerland as a tourist country having every interest in encouraging foreign automobile owners to enter her territory.

Other European countries have no intention of following the Swiss example, the general opinion being that the common law is sufficient to protect the public without making insurance compulsory. It is very doubtful, too, if adjoining countries would admit the basic principle accepted by Swiss motoring bodies, namely that the onus of proof shall lie with the defendant. In France, in particular, the claimant must prove intention, negligence or imprudence on the part of the automobile driver involved in an accident.

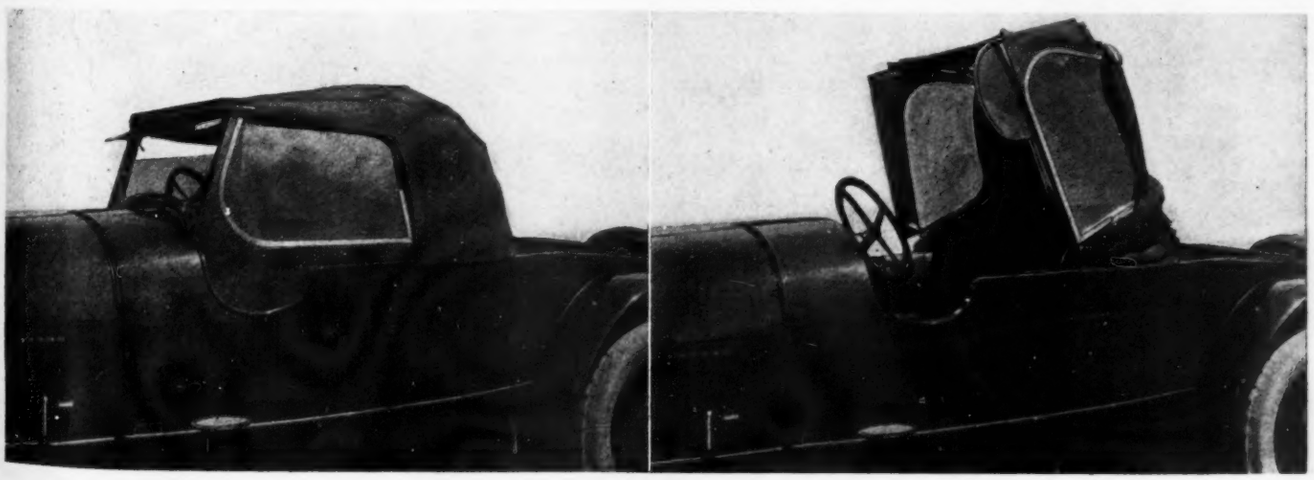
New Body Gives Both Open and Closed Car Comforts

ALL the delights of the sporting open two-seater, with the complete protection given by the coupe are combined in the new type windscreen and top patented by M. Bunau-Varilla and applied to Bugatti cars. The two-panel windscreen with lower half fixed, the upper half hinged, is a one piece structure with the glass side panels, and, instead of being permanently attached to the scuttle, it is hinged at the rear lower extremity to the same point as the folding top.

To enter or leave the car the windscreen is swung back, into practically a vertical position, this operation being facilitated by counterweights concealed behind the upholstery. With the screen in this position it is possible to stand upright and get into or out of the car without any unusual movements. When seated, the screen can be pulled down with one hand and fastened to the scuttle with a quick-acting lever type catch. Rubber filler strips along the edge of the screen and the side panels are said to assure a perfectly tight, silent and waterproof joint.

The top is of normal type, except in the matter of attachment to the top of the windscreen, this being by two quick-acting catches which can be operated while the car is in motion. If the top is fastened to the screen, the whole can be thrown back with one movement whether the car is in motion or standing. No side doors are fitted, but the left panel of the body is cut away and this opening is covered by a projection on the side panel. It is not intended to apply this to other than small and sporting type cars, but the advantages claimed for it are lightness and ease of construction, an absence of rattle and more complete protection against rain by doing away with the usual gap between the windscreen supports and the side panels.

A LIGHT car exhibited at the recent Prague automobile show by the Bohemian-Moravian Machine Works is provided with a safety device whereby it is made impossible to fully open the throttle unless the oil pressure on the engine bearings is up to normal. When the engine is at rest and there is, consequently, no oil pressure, a piston on which the oil pressure can act, is held by a spring in such a position as to make it impossible to open the throttle beyond the idling position. When the oil pressure is normal, on the other hand, this barrier to the opening of the throttle is removed.



Hinged top for roadster shown in open and closed position on Bugatti body

1925 Harley-Davidsons Show Some Changes and Are Slightly Lower in Price

Softer front fork springs, longer seat post spring with buffer, larger saddle with redesigned handle bars add to riding comfort.

By L. S. Gillette

LOWERED riding position, bullet shaped gasoline tank and large cross section tires are the characteristic features which impart the swift, graceful lines to the new 1925 models of Harley-Davidson motorcycles. Mechanically there have been no radical changes made between this year's model and the 1925 machines, but a considerable number of major improvements have been incorporated.

The majority of the changes have been made to give added comfort to the rider. Softer front fork springs, longer seat post spring to which a buffer has been added, a larger form fitting saddle together with the redesigned handle bars, reduce the fatigue on long trips or where the going is rough. Several of the controls have also been altered. The compression relief has been taken off the left side of the handle bars and is now operated by a foot lever, making it impossible to stop the motor should the spark grip be retarded too far and thereby lifting the valves, as was formerly possible. The gear shift lever and gate has been placed more conveniently and the kick-start pedal lowered so as to facilitate the starting of the motor.

Oversize tires 27 x 3½ in. having standard size valves to fit any air hose have been adopted in place of 28 x 3 in. on the 1924 models. The rims are 26 in. in diameter and are made wider and thicker where the nipples set in to stand more hard usage.

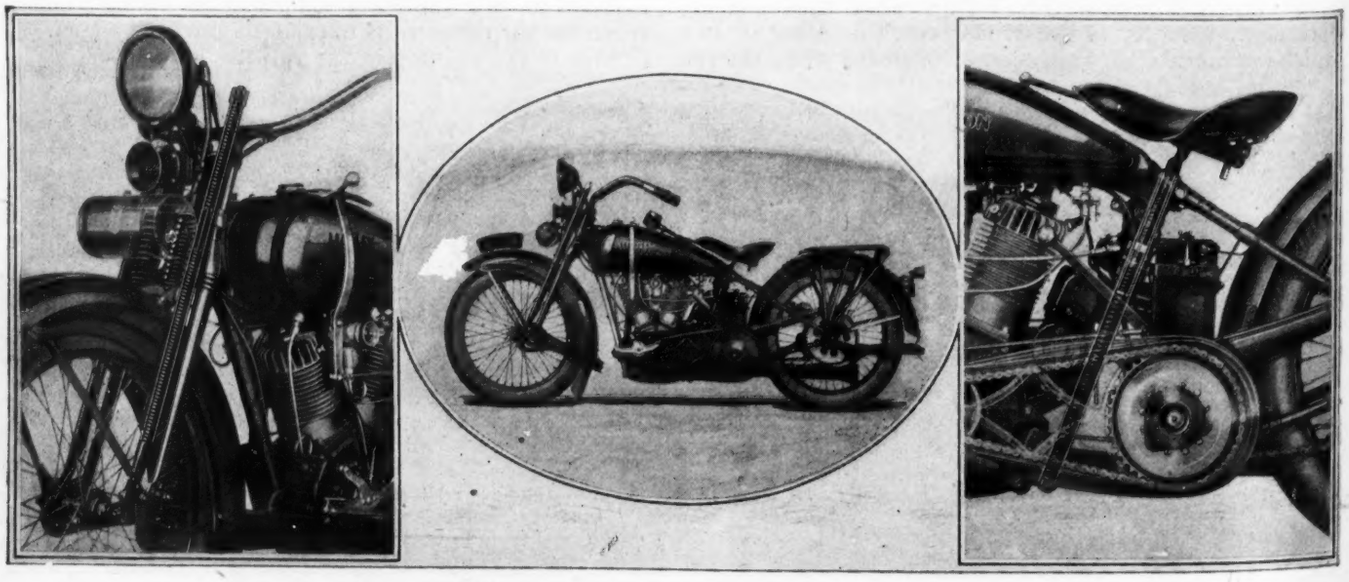
Except for the adoption of light weight iron alloy pistons, the 61 and 74 cu. in. motors, having a bore and stroke of 3 5/16 x 3½ in. and 3 7/16 x 4 in. respectively, remain unaltered in the new models. The newly designed frame now carries a drop forged head, the high carbon steel tubes have been strongly reinforced, and the motor base protected. A new position of the clamp lug makes it easier to remove and replace the motor.

An improvement in the appearance of this year's models is the adoption of a long tubular type rustproof muffler in place of the usual exhaust box, giving a cool running motor and reducing back pressure. The tube, which is 46 in. long and 2½ in. in diameter, is securely fastened to the frame, and at the rear the exhaust is deflected so that no oil can touch the wheel or tire. A positively operated cutout is fitted midway down the pipe. The rear mudguard has been lengthened to prevent mud being splashed upon the rider, and to lessen the effort in setting the motorcycle the rear stand has been shortened.

All important bearing surfaces except those oiling themselves in the motor and transmission are lubricated by the Alemite system, which was first adopted on the 1924 machines. Additional Alemite fittings have been added.

Both the 61 and 74 in. models are offered either as "electric" or "magneto" equipped. On the "electric" models the system consists of a single unit 6-8 volt Harley-Davidson built generator-ignition unit, a two-bulb headlight, tail light, Klaxon motor driven horn, ignition switch and a four-plate storage battery which is now mounted vertically and more accessible. The terminals, which are filled with vaseline to prevent corrosion, extend outside the box, where they are in plain view. The entire electrical system is protected by fuses. The "magneto" model is Bosch equipped and gas headlight and tail light, carbide generator and hand warning signal are fitted.

A slight reduction in list prices has been made on the 1925 models which range from $295 to $335.



Left—Handle bar and front fork spring details. Center—Showing the bullet shaped gasoline tank mounted on the machine. Right—Spring mounting of the larger saddle

Exactly What Is the Farm Problem and How Is It Going to Be Solved?

"Of the 6,500,000 farms in the United States not less than one million should be abandoned," says one banker-farmer and adds "You cannot change economic facts by passing laws about them."

By Edward F. Roberts

EVERY American business man who is engaged in the buying or selling of goods has a very direct, personal interest in the so-called farm problem even if, as is no doubt true, he often wonders to himself what it is all about. He knows enough about it, however, to realize that dull times on the farm mean dull times in the store or factory, and he knows also, to his cost, that for a long time now dull times on the farm have been the rule.

Ever since the bursting of the post-war business boom in 1920 the farmer has held the center of the national political stage. The fact that tens of thousands of merchants and manufacturers went to the wall in that disastrous year went almost unnoticed compared with the tremendous pother that was stirred up over the plight of the farmer, a pother which has continued almost unabated to the present day and which will certainly not abate until after the November election anyway.

What is the farm problem and what is its solution?

Every politician in the country is ready with an answer to that question, and particularly the professional and frequently self-appointed spokesmen for the farmers who, in most instances, are lawyers who would be hard put to tell the difference between rye and wheat except in liquid form.

Because the answer to the question and the solution of the problem are of genuine concern to American business men, I went out to seek them from some man who was not a politician or a professional farmers' advocate and who could justly claim to know what he was talking about. The man who seemed to fill those requirements was Guy Huston, a successful farmer and a more successful banker who has organized and directs half a dozen joint stock land banks in the great agricultural States of the Middle West.

Mr. Huston's father and grandfather before him were prosperous farmers and bankers in Illinois and, in addition to his banking interests which involve $160,000,000 in farm mortgages, he personally farms 3000 acres of land near the little town of Blandinsville, Ill. Not being a politician, Mr. Huston has no panacea for the farm problem, but he has a very clear idea of what it is and of one drastic remedy.

"Misdirected energy" might paraphrase Mr. Huston's explanation of the problem, and his remedy can be expressed almost as briefly: "Abandon at least a million farms."

That is rather a stiff facer for the people who are always talking about the necessity of a "back-to-the-farm" movement, but, as has been remarked before, these same people never show much eagerness to go back themselves.

Mr. Huston, however, whose business calls for expert knowledge of farming conditions in every part of the country, is not much impressed by the arguments of the "back-to-the-farm" advocates.

"There are 6,500,000 farms in the United States," he says, "and there are at least a million of these that should be abandoned, for they represent land that God never intended a plow to be put into. That is a conservative estimate too, for if all the facts were available I believe you would find that at least one farm in four is unfit for cultivation."

"That is small encouragement for the people who believe that the rush from the farms to the cities is the source of most of our woes," I remarked.

"I cannot help that," said Mr. Huston. "The land I am talking about was never intended for crop raising and will never be fit for it. Year after year the men who are engaged in tilling this land toil and scratch for a living, spend their money for expensive fertilizers and break their hearts because each year ends with nothing to show for their labor. I do not say that all the talk we hear about the hard lot of the farmer comes from these men, but undoubtedly a very large part of it does."

"What would be the effect on the country's food supply if these million or more farmers should be withdrawn from production?" I asked.

"Very little. The land I am talking about contributes practically nothing but a living to the men who cultivate it and their families and leaves them discontented and discouraged in the bargain. They would be far happier and the country would be better off if they would abandon their hopeless task and move into town to work in the factory or shop."

"Where are these million or so hopeless farms located?" I asked.

"There are poor farms and poor lands in almost every section of the country," replied Mr. Huston, "but perhaps the worst examples of what I mean are to be found in the semi-arid districts of the West and the hilly, stony lands

Heroic Cure for Farmers' Woes

ONE-FOURTH of the farms of America are not fit for cultivation and should be abandoned, says Guy Huston, farmer and banker, who has an expert knowledge of farm conditions in every state in the union.

The "back to the farm" movement receives little encouragement from Mr. Huston who is also convinced that it is useless to expect a solution of the farm problem by passing laws. "You cannot change economic facts by passing laws about them," he says.

of the old South and East. As far as much of the old South is concerned, I think it is through as an agricultural country."

"Do you mean the southern cotton farmer?"

"I mean the one-man and one-mule southern farm that raises only cotton," replied Mr. Huston with emphasis. "The farmer of the old South is engaged against desperate odds in trying to raise cotton with the terrible threefold handicap of a thin and sandy soil, severe rainfall and the boll weevil. He did succeed up to recent years in making some kind of a living through the lavish use of fertilizers. But fertilizers are too expensive today and the boll weevil too certain in regions of heavy rainfall."

"Where, then, is our cotton going to come from?"

"Mainly from Texas. In the cotton growing sections of Texas the rainfall only averages about 25 in., against 50 in. in most parts of the old South. Last year almost half of the entire American crop of cotton was produced in Texas and western Oklahoma, and that proportion is bound to steadily increase. As far as my judgment goes, at least, the old South is through as an agricultural section. There are many spots, of course, which will remain good, such as in the Piedmont district of the Carolinas, but they are not big enough to materially affect the general situation."

What About Remedies?

"What about the innumerable remedies by law which are proposed for the relief of the farmer?"

"I have little faith in any of them. If I were personally asked to suggest some legislation to aid the farmer I could not do so. Certainly no laws fixing prices will ever benefit him. You cannot change economic facts by law. It is true that the farmer has repeatedly voted for high tariffs, especially in the West. But he did so because he was convinced it would help to build up the cities and industries in his State. He was quite right in that, but it was against his own immediate personal interest."

How Farmer Could Help Himself

"What could the farmer do to help himself?"

"One very important thing he could do is to invest his savings in outside securities and give up his favorite habit of putting all his spare cash in land and more land. As soon as the average farmer accumulates a few thousand dollars his first impulse is to add to his land holdings. He does not realize that this practice simply means running up the price of land on himself. I am also a strong believer in the value of cooperative enterprises when they are on a sound basis. Many of these have failed because they were not properly organized and administered. But the idea is a good one and farmers are gradually learning how to turn it to the best advantage.

"Farmers are pretty much like everybody else, after all. There are good ones, bad ones and indifferent ones. The ones who are farming the rich black lands of the Middle West are making money, as a rule, and have no serious complaint. The success of farming depends, after all, very largely on the soil. In Illinois and Iowa we have millions of acres which are so rich in potash that they will grow crops for the next 5000 years without needing any fertilizer.

"About 22 per cent of the farm wealth of the country is produced in this favored belt, and there is enough land of this character in the United States to raise all the food we need and then some, if all the poor farm land was abandoned. That would be one very effective solution of the farm problem."

Two Developments Made in Pendulum Hardness Tester

TWO new developments in the pendulum hardness tester are being shown at the Machine Tool Trades Exhibition in London this month by Edward G. Herbert, Ltd., of Manchester, England. One is a pendulum operating stand, specially adapted for inspection testing where a large number of tests must be effected rapidly. It also permits of time tests to be made without previous practice. The standard pendulum is used, and the operation is entirely mechanical. Slight movements of one handle serve to (1) release the table and allow it to rise until the pendulum swings gently on the work; (2) operate the stop watch and (3) lower the table and replace the pendulum on its three-point support.

The arm supporting the pendulum can be raised to admit specimens up to 6 in. deep. A ball-pointed diamond can be supplied for inspection testing on hardened steels.

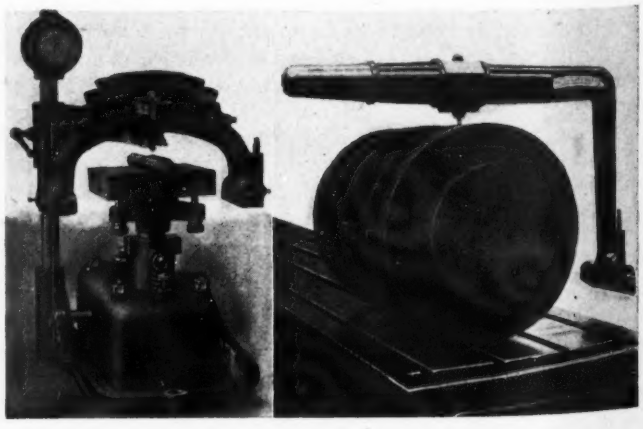
The table is mounted on a plate which rests on three leveling screws. It can be replaced by special fixtures for testing irregularly shaped work.

The standard pendulum can be used to make time tests on this stand and also to make "scale," "work-hardening" and temperature tests by hand operation.

The 24 kilogram pendulum hardness tester is identical in principle with the standard 4 kilogram pendulum, but is adapted for testing very large work. With it hardness tests can be made on shafts or rolls up to 30 in. in diameter; at any point on plates or other flat surfaces 30 in. wide; at any point on the face of gears or drums of any diameter and 30 in. wide, and inside a hole such as the bore of a gun or a large bearing.

The pendulum weighs 24 kilograms and is pivoted on a steel ball 3 mm. in diameter. Adjustable weights are provided whereby the center of gravity of the pendulum can be brought to the center of the ball, and a central weight mounted on a micrometer screw provides for adjusting the length of the pendulum.

The 24 kilogram pendulum is adapted for making time tests for indentation hardness, scale tests for work-hardness, and for measuring the work-hardening capacity of metals.



Herbert pendulum operating stand and 24 kg. pendulum hardness tester

Here and There in Foreign Markets

By special arrangement with the Automotive Division, Bureau of Foreign and Domestic Commerce

Swedish Tire Consumption

FROM figures obtainable from dealers it is estimated that the sales of tires in Sweden during the second quarter, which is usually regarded as the best selling season for tires, have been close to 50,000. Dunlop and one American make are competing for first place, followed closely by Michelin. Four other American make of tires and Englebert, Trelleborg, Continental and Belgrave are also represented here. Practically all the important makes are selling at the same price. It is estimated that between 4000 and 6000 Trelleborg pneumatic tires are sold yearly in Sweden; however, these sales are not based on the popularity of the tire, but on the fact that all Swedish Government offices, such as the post office, fire brigades, and semi-official institutions support the home industry by equipping their automobiles with Swedish tires. Dealers now estimate that during 1924 the entire sales of pneumatic tires in Sweden will amount to 120,000. There has been a considerable demand for balloon tires recently and shipments of the various makes are expected to arrive within the near future. The Swedish Trelleborg factory is also taking up the manufacture of balloon tires.

Buenos Aires Buying Balloon Tires

THOUGH six American makes of tires are active in this city, Michelin, Dunlop and Continental rank second, third, and fourth, respectively, an advantage which has been gained largely through the exchange situation. Balloon tires are increasing in popularity.

The representative of one American make is quoting prices on a complete set of balloon tires, consisting of 4 wheels, 5 rims, 5 tires, and 5 tubes. It is believed that the goodwill gained through the workmanship of the regular sized tires, will enable American balloon tires to retain their leading positions on this market.

Swiss Imports Nearly Double

SWISS automobile imports nearly doubled in value in the first six months of 1924 compared to the same period of 1923, being 23,144,000 francs against 13,940,000. The United States ranked third as a source of supply, reaching a value of 5,550,000 francs compared with 6,496,000 francs for Italy and 8,237,000 francs for France.

Canary Islands Dependent on Automobiles

DURING the month of June, 44 passenger cars, 23 trucks, and 1 motorcycle were registered in the Canary Islands. There is still no probability of railroad construction in Teneriffe and Grand Canary, the two principal islands of the Canary group, and, since the automobile furnishes the only available practical means of transportation, the progressive increase in sales of both passenger cars and trucks in post war years is not surprising. Road repair work and construction is progressing satisfactorily and it seems likely that by fall conditions will be highly favorable for the sale of automobiles.

British Car Exports Increase

LARGE increases in British exports were recorded during the first six months of 1924, as compared with the same period of 1923. In the current half year, 4421 touring automobiles valued at £1,209,257 were exported, compared with 940 valued at £394,215 a year ago. Commercial vehicles increased to 616 valued at £365,912, against 410 valued at £339,017 in 1923. In motorcycles and tricars the increase was also striking, 20,059 valued at £881,118 being exported in the first half of 1924, as compared with 7,399 valued at £383,537 a year ago.

Imports declined considerably during the current half year, as compared with the same period of 1923. However, with the removal of the McKenna duties on Aug. 1, a very marked increase in British imports is anticipated, especially in the touring car class.

Poland Changes Customs Payments

A CHANGE, which will affect materially the tariffs on automobiles into Poland, has been made by the Polish custom authorities, and notification sent to the Tariff Division of the Department of Commerce here.

Heretofore all custom duties had to be paid in gold. This will no longer be necessary. Optional payments may still be made, however, in gold of the various countries, according to fixed values. Formerly, it was sometimes necessary for importers to offer premiums up to 30 per cent in order to obtain the necessary gold for payment of customs duties on automobiles and other so called luxury articles, which under the new regulations, effective July 13, will be obviated.

American Cars Routed Through Canada

CANADIAN revenues were recently increased as a result of an American firm, manufacturing low priced automobiles, routing a shipment through Canada for export. The shipment was consigned to Melbourne, Australia, and was railed through Winnipeg on the Canadian National Railways for Vancouver, and thence to Melbourne, via a Canadian Government steamer.

What the New Chevrolet $5 a Week Plan Offers Dealers and Buyers

Not only will the company pay six per cent on money deposited toward the purchase of a new car, but will credit six per cent on service work and accessories sold to present car owners.

CHEVROLET MOTOR CO. is introducing a new car purchase plan, called the Chevrolet 6 Per Cent Purchase Certificate Plan, the unique features of which are that it offers 6 per cent interest on the money deposited toward the payment of a car, and also credits 6 per cent on all service work or accessory purchases toward the purchase of a new car.

In this way the sale of the certificates is opened up so that not only the non-car owner is a prospect, but also the present Chevrolet owner as well as the present owner of any car whatsoever. The non-car owner is attracted by the 6 per cent interest feature, the Chevrolet owner by the credits of 6 per cent allowed on all service and repair work, and on any accessories he may purchase; the non-Chevrolet owner by the credits on accessory purchases, and such repair work as can be done on his make of car in Chevrolet shops.

The plan is copyrighted by the Chevrolet company and is being introduced immediately to its dealer organization. It is an optional plan that is recommended to dealers for the purpose of building up business ahead, rather than waiting for the chance discovery of the prospect who is ready to buy.

By reason of the fact that the 6 per cent accumulation is lost if the certificate owner does not proceed with the car purchase, it is expected that the plan will be more successful than the usual one in keeping the buyers in line. Similarly, by keeping salesmen and dealers working on future profits and commissions, rather than immediate ones, it is expected to aid in holding withdrawals in these ranks to low figures.

Two-fold Aim of Credit Features

The credit features on service work and accessory sales has a two-fold aim. First, to make repeat buyers of all present Chevrolet owners and, secondly, to bring all Chevrolets to authorized dealers and service stations for service work, thereby increasing the volume of parts business and service profits, and also increasing the volume of accessory sales.

As outlined by the company, the plan presents a means of offsetting depreciation on present cars, in that it sets up credits from maintenance charges on the payment of a new car when the owner is ready to change over. By servicing the old car the dealer is in position to appraise it fairly and accurately when offered in trade on a new one. Furthermore, it reduces the possibility of dealer losses through competitive bargaining on trades, in that the buyer and dealer are established on friendly terms previous to the deal.

The plan differs, too, from the usual easy payment plans in that the dealer does the collecting and the keeping of accounts. He is therefore in touch with the buyer at all times and is in position to keep payments up to date. Money received on time payments is deposited in a separate trustee account by the dealer, so that no loss can visit the certificate holder through the administration of the general dealer business.

Purchasers under the time payment are further guaranteed against loss in any form in that the dealer and the bank in which the trustee account is to be kept are insured. The dealer before being permitted to operate under the plan must be passed upon by the insurance company designated by Chevrolet Motor Co. Following this he receives certificates and other office equipment incidental to applying the plan and nothing remains but to go out and sell it. The certificates cost the dealer $1 each, this meeting the cost of insurance premium which is paid by the Chevrolet company and cost of printing. The other supplies, including bookkeeping equipment, seal and stamp, cost $10.

How the Plan Works for Dealers

In selling the plan, the dealer receives an actual order for a particular type of car. Copies of the order are kept by the purchaser and dealer and another copy goes to the Chevrolet zone office. Payments are credited on the certificate which the buyer retains and delivery of the car is made when a one-third payment has been accumulated or such other time as the buyer desires.

Outstanding advantages of the plan are outlined by the company as follows:

It opens up a new market.

It covers the present market more effectively by making repeating buyers of Chevrolet owners.

It makes an immediate prospect of everyone who now owns a car.

It strengthens the dealers' credit with the banks.

It reduces turnover in salesmen, and gives them a chance to build a business for themselves.

Intensive canvassing by salesmen becomes easy with the Certificate, as everyone is a prospect.

It increases the business in the service department.

It increases the sale of genuine parts, insuring better service from Chevrolet cars.

It reduces selling costs.

It is profitable to the purchaser as well as to the dealer and salesman.

It provides a closer and better contact with present owners.

It provides a close contact with future owners, closing the order before competitors know the purchaser is a prospect for a car.

The dealer can enter into contracts with a better knowledge of future business.

It has much advertising value.

It is an attractive sales plan.

It is easily understood.

It is absolutely safe.

Its operation is simple and does not entail a large expense.

Payments under the plan may range from $5 a month up. Dealers will insist upon regularity of payments rather than high rates, and car owners lapsing in payments will not be entitled to the service and accessory credits while in arrears. The interest and credits will be applied to the total payment when the buyer is ready to take delivery. Usual time payments apply after delivery of the car. All interest and credits are lost if the certificate holder withdraws.

The purchase certificate as prepared by the factory bears the name of the dealer offering it and the city in which he is located. The trademark of the company is printed on it but not the company name. Under its terms the buyer or holder contracts to make regular payments of a fixed amount. The dealer agrees to deliver a car of certain type on completion of a one-third payment and to apply interest and credits as outlined. All payments are agreed to be deposited under a trustee account to be withdrawn only when car delivery is taken, or holder desires cancellation of his certificate.

Provision is made in the certificate that in the event of a change in dealer, the certificates will be taken over by the Chevrolet Motor Co. and may be assigned by them to a succeeding dealer. This provision appears in the individual certificates and is made the subject of an addendum to the regular Dealers Chevrolet Selling Agreement. The addendum further sets forth that the right to sell certificates under this plan may be withdrawn by the Chevrolet company in the event that the dealer is not functioning in satisfactory manner.

Banker's Attitude

With reference to the banker's attitude toward the plan, the company says:

"Bankers will look upon Chevrolet dealers with more favor in extending lines of credit. This will make it easier for the dealer to meet and carry his quota during the low sales months. Instead of saying, 'We think we will sell two hundred cars,' the dealer can say, 'We have sold and are receiving payments on two hundred cars. This fund amounting to so many thousands of dollars is on deposit in your bank.' Bankers like definite statements rather than expectations. Think how much better position Chevrolet dealers would be in at the present time had the Chevrolet plan been in operation for two years.

"Bankers will approve our plan of getting owners to save in advance to buy the next car. Automobiles are a necessity, and should become a part of every family's budget. Like the Christmas Savings Clubs, which started in a very small way and have grown to hundreds of millions of dollars each year, we can teach the people to save in advance for their automobiles.

"The bankers will make more money on the deposits, as their clerical work will be only on one account instead of several hundred."

The payment of 6 per cent by the dealer on the money accumulated toward car purchase is analyzed by the company to not represent more than a cost of about $3 a car or one-half of 1 per cent of the sales price.

The money deposited under the trustee account will draw interest at 3 to 4 per cent, the dealer paying only the difference. The extra interest is an incentive, the company states, to the buyer to save through the dealer rather than the bank. As he regards the transaction at all times as a car purchase rather than as a savings plan, there is less likelihood of his changing his mind. The allowance of 6 per cent on service and on accessory sales is compensated for directly by increased business.

Salesman Commissions

Payments to salesmen under the plan are variable according to the dealers' policies. The company recommends or suggests a payment of $5 for each certificate sale, this being charged against the salesman's account and deducted when the car is delivered. If the certificate is cancelled the commission is charged against other sales which may be credited to this salesman. By giving him an opportunity to build up future business there is less likelihood of the salesman being drawn away.

The plan is being put into effect at once. As rapidly as dealers qualify under the insurance provision and as rapidly as the certificates bearing the individual dealer's names can be prepared, they will receive them. The company expects to make the plan general in all parts of the country, and every dealer will be given full opportunity to make it a big sales producer.

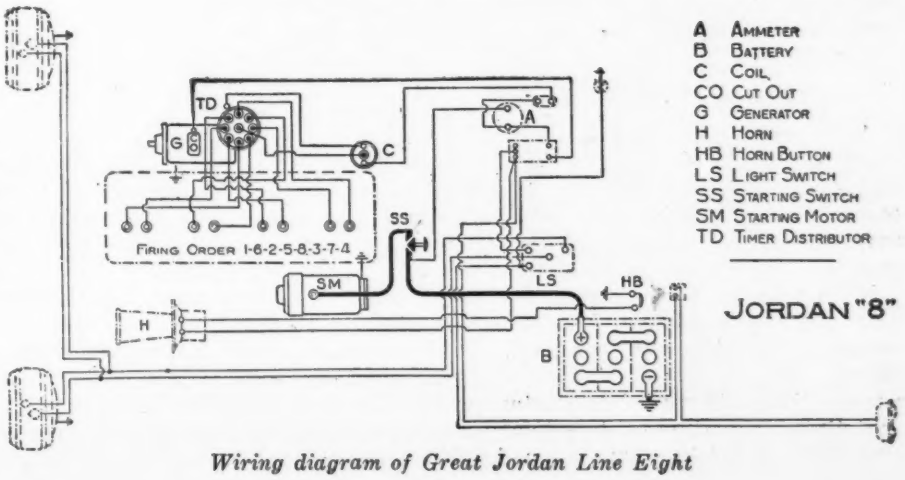
Jordan Using Bosch Equipment

IN the new Great Jordan Line Eight, Jordan for the first time uses American Bosch electrical equipment, and it also happens to be the first battery ignition equipment for an eight-cylinder engine ever furnished by the American Bosch Magneto Corp.

The ignition system is of the standard compensating type, which provides automatic spark control. The distributor is mounted on the commutator end of the generator, where it is very accessible, and the ignition coil, of the standard armored type, is mounted on the forward side of the dash.

The generator is a 5-in. unit, with third brush control. It is flange-mounted and driven by a laminated flexible tongue coupling. It gives a maximum output of 16 to 18 amp. at 8 volts at an engine speed of 1200 r.p.m. The starting motor is of the 4-in. size and is mounted on the left side of the engine. It is a gear-reduction type with a standard sleeve mounting. The wiring system is of the ground return type, the negative side of the battery, generator and lamps being grounded.

A wiring diagram of the system is shown below. It will be noticed that each headlamp is fitted with two bulbs, one for road illumination and the other for parking. This explains the running of two wires to each lamp in spite the use of the ground return wiring system.



Wiring diagram of Great Jordan Line Eight

Uniform Signs and Regulations Needed to Promote Traffic Safety

Modern highway design is helping materially to reduce the number of accidents. Drivers should be responsible for keeping brakes in good condition, highway official says.

FOUR basic factors are involved in the highway safety problem:

1. The independent safety of the individual driver.
2. The common safety of passing drivers.
3. Safety for pedestrians.
4. Economic maintenance, care and preservation of the road itself.

These fundamentals must be understood before the problem can be attacked successfully, but once they are recognized many difficulties present themselves in matters of detail, expediency and practicability. This is the conclusion reached by E. W. James, chief, division of design, U. S. Bureau of Public Roads, in an article on "Traffic Control and Safety" in the current issue of *Public Roads*.

Mr. James' discussion brings out clearly and briefly the traffic accident situation as it stands today and offers many practical, concrete suggestions for bettering conditions. He writes in part:

The basic principles are easily defined and generally accepted. Reduced to the simplest terms they may be stated as follows:

1. The development of safe roads by elimination of all known dangers in so far as such elimination is possible within physical and economic limitations.
2. Warning of uneliminated dangers by means of easily recognized signs and other devices of standardized form, uniformly placed with respect to the danger.
3. The development of safe vehicles by perfection of running parts and adoption of safety devices.
4. Diligence and care in the licensing of drivers of motor vehicles to eliminate the incompetent, careless and irresponsible driver.
5. The development of simple, uniform and effectual traffic regulations and the education of the whole public to a complete acquaintance with them.
6. The rigid enforcement of traffic regulations.

There is little doubt that a solution of the problem worked out on the basis of these general principles would have the effect of reducing the dangers of the open road to a minimum.

Data on Causes of Accidents Important

As a preliminary step it is important that a careful study be made of the causes of accidents occurring on the highways. Studies of this sort have already been made in several States, and have proved invaluable as a guide to State officials by indicating the relative danger of various practices and conditions requiring correction.

Much remains to be done in developing practice in design and construction of highways that will reduce the danger of traveling the open road. In this respect, as in others, the sources of danger are comparatively well known. What is needed is constant watchfulness to prevent the perpetuation of dangerous conditions, an aggressive policy of safety promotion, and public support for the expenditures required, which in some cases are quite heavy.

Few persons, asked to catalogue the principal dangers of the road, would fail to include those in the following list:

Blind curves and road intersections.
Sharp curves on embankments.
Unprotected embankments.
Narrow bridges.
Sharp convex vertical curves.
Slippery road surfaces.
Steep grades.
Narrow road surfaces.
Low or rough shoulders.
Steep crowns.
Sharp curves at bridge and underpass approaches.
Grade crossings.
Unsuperelevated curves.

These, then, are some of the defects which should be avoided, so far as practicable, in future construction.

Width of Highways and Vehicles

A most important detail is that of providing adequate width for traffic and controlling the width of vehicles, because a hazard exists to passing drivers in having to leave the road surface on account of the inconsiderate or incautious driving of the other man. This danger is not confined to curves but is as great perhaps on tangents if we are to believe the evidence of the Maryland and Connecticut records.

Against this danger we can employ correctives in design and many States are doing so, especially on curves. The widening and superelevation of curves is now becoming very common and is standard practice on all new work in many States. There exists considerable variety in the assumptions and details of design, but the defects are essentially alike in all cases.

In Maryland the rapidly increasing traffic has forced the State to reconstruct a large number of curves on their earlier built roads to make them safe. This practice has prevailed also for many years in Massachusetts.

There always exists some danger of accident to passing vehicles because of loss of control by one or the other driver. Sometimes this is "psychological," due to nervousness or inexperience, inability to gage correctly the clearance of the vehicle or the state of mind of the other fellow. This hazard is reduced by widening the road surface, and may always be further reduced by the control of speed and the reduction of gradients.

In safe design we must emphasize, then, adequate original width of surface, control of width of vehicle, flattening and strengthening of shoulders, the use of guard rail and other protective structures where high fills require them, the superelevation of curves and the lengthening of convex vertical curves, the securing of sufficient line of

sight, the proper adjustment of profile and alignment to avoid dangerous combinations of gradient and curvature, and the proper type of surface.

Uniformity of Danger Signs Largely a Problem of Selection

It is, of course, impossible to build a highway which will be absolutely free of danger to its users. Curves and road intersections, grades and embankments must remain in the best of roads, and each is potentially dangerous.

All that can be done, then, is to give the traveler due warning of the danger. Signs, either diagrammatic or worded, are commonly used for this purpose, and in some States these have reached an entirely practical and useful stage of development.

For instance, the series of danger signs adopted by the State of Idaho is especially effective. They are uniform in design, simple, bold and striking. In contrast with these are those which reply too much on wording and require too much attention on the part of the passing driver. Washington, New Jersey, Ohio and Tennessee have already adopted schemes essentially like that of Idaho and the possibilities of standardization are many, some of them obvious.

Drivers in different States will recognize the signs as having identical meaning, the effect of repetition will educate, the use of the sign will become more general, the cost of manufacture will be reduced, the method of installing can be made more unform than is now possible, and this in turn will expedite and cheapen the installation.

The development of a complete series of danger signs and their general adoption and use is a problem in the safety of our highways.

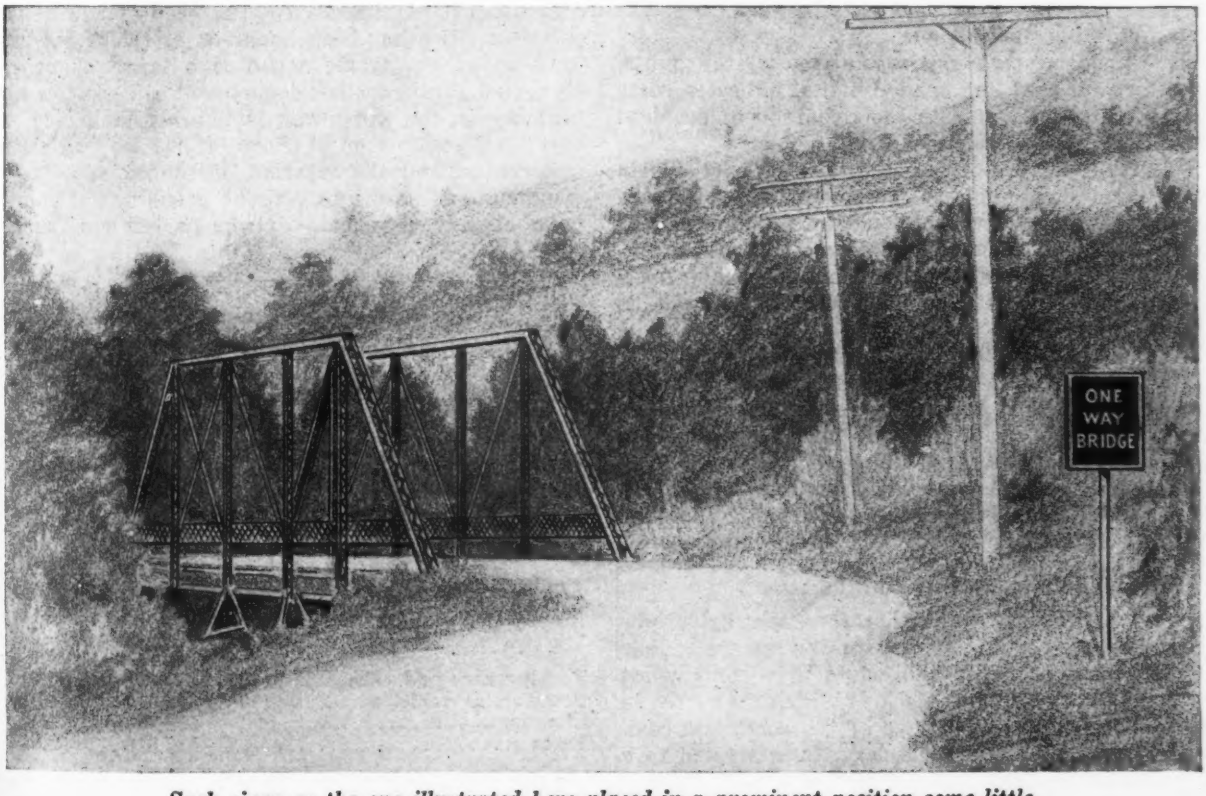
Reducing Hazard at Curves

Another method of reducing hazard at curves is by use of markings on the road surface to direct the path of traffic. The commonest mark is the "center line" in white or black. The latter, first adopted, is now generally giving away to white, which has much greater visibility under prevailing conditions. The system of traffic markings has been most completely developed probably in Massachusetts, but is also used generously in Pennsylvania, Maryland, Delaware, New York, Illinois and other States. This system is effectually confined to "black top" pavements, concrete and other hard surfaces. In Pennsylvania experiments have been made in constructing a white center line integral with a concrete pavement. This is expected to save the cost of maintaining such markers and also to make it possible to extend their use widely—to tangents as well as to curves.

Glaring Headlights

Probably the most conspicuous of the faulty details is the presence and use of glaring headlights and spot lights. This is a matter that is susceptible to correction by regulation and it may be possible to apply the regulation at the source and actually prevent the manufacture and sale of those types of lamps that are most dangerous, as well as to prevent their use on vehicles.

Next to glaring lights it is probable that defective brakes are the most frequent causes of collision attributable to equipment. This emphasizes a fact that is noted in connection with a large percentage of accidents involving mechanical devices. The very means of safety to which we trust ourselves fail to act. The lesson is one for the car owner and no amount of regulation or inspection is practicable that would effect a remedy in this case. The man who undertakes to operate a power vehicle on the public highway at speeds approaching or exceeding those of many railroad trains, but without the safe guidance of a track, must depend to so large an extent on the effectiveness of his brakes that he should assume the responsibility of this detail at least. And if he fails to assume it and has a collision in consequence he should be held accountable beyond question.



Such signs as the one illustrated here placed in a prominent position some little distance from either end of a narrow bridge warrant universal acceptance and use

Faulty brakes should never be accepted as an excuse for anything.

The attempt of manufacturers to increase the security of braking devices by adding them to the front wheels may reduce the chances of accident by doubling the brakes available, or it may increase accidents by instilling a too great confidence in brakes. However, the introduction of the four-wheel brakes serves to indicate that the question of providing greater security of equipment is receiving consideration by those concerned in its manufacture.

The introduction of balloon tires also has its effect on the ease with which a car is steered and on the tractive efforts exerted on the road surface. These tires doubtless

Maryland uses these signs throughout the State for long descents and steep grades

do less damage to road surfaces than harder pneumatics or solid tires, but they may somewhat increase the stiffness of the steering mechanism.

The use of nonsplintering glass, automatic stop lights, reflecting mirrors, cowl and fender lights, indicates some of the lesser details that aid in the reduction of accident or injury.

Other features of design, affecting more particularly the heavier and larger motor equipment, must be controlled in the interest of general safety. The width of truck body or of load must be kept down to a safe dimension and should not be greater than that customary for a standard gage vehicle with ordinary extensions such as wheel guards or fenders.

A vehicle so wide that it converts a two-way road for a moment in passing into a one-way road so that traffic in the opposite direction is forced to the shoulder is never anything but a hazard, and what is more, it represents license, not liberty, in the use of the public highway.

The safety of the highways will not, however, be entirely secure until there is a standard of competence fixed as a prerequisite to driving.

Driver Responsibility

It becomes at once important, therefore, that drivers be impressed with their responsibility to the general public to the point, first, or being allowed to drive only when proficient, and in the second place of driving strictly in accordance with the law, the rules of the road, and common courtesy. The pedestrian at least is interested to a certain degree in the last.

The safety of a single vehicle can be secured with comparative ease, economy and some slight display of common sense by the driver. The matter is largely in his own hands. When the safety of passing vehicles is in question, however, there enter a number of new and important details, sometimes difficult of adequate solution. The much overworked word "psychology" may be invoked because the simultaneous use of the highway by many drivers requires that each one shall have at least some assurance, some more or less definite idea, of what each of the other is going to do in any ordinary situation arising. The simplest illustration of the requirement is the knowledge each driver has that one meeting him will turn to the right and pass on his left side. One of the important features of safety involves the extension of these simple practices to as many general conditions as possible.

To accomplish this result the education of the driver is necessary, and his observance of the instruction must be secured. Several States have devised simple schemes for impressing those in charge of motor vehicles with the elements of safe driving. Much has been written, there are certain "rules of the road," and safety will, in general, be promoted in proportion as these become developed, understood and observed.

Regulation and Enforcement

It is clear that much can be accomplished by regulation and the driving habits formed by the enforcement of the rules in cities. The success of the regulation lies to a great extent in the way the law is enforced. In general, it is the common opinion that there is too much laxity.

Recently there have been made again a number of suggestions, not new, but revised, for severe penalties. They are made almost annually or whenever a new sheaf of statistics of highway accidents is published. The principal suggestions are jail sentences instead of fines, revocation of licenses, and impounding of the vehicle for a limited period. The National Automobile Chamber of Commerce has recently advocated impounding the car of the reckless driver.

The matter of strict enforcement of traffic laws is as difficult as it is imperative. The need of additional traffic police in cities has been apparent as traffic has increased until today the traffic squad is a large element in the personnel of the police department. To police the open highway in the same way is impracticable and unnecessary; but some form of more or less ubiquitous policing is essential and the creation of county and State police organizations seems to present a solution. Some States have already developed extremely efficient rural police corps.

THE British foreign automobile trade returns show that the excess of imports over exports for the first half of 1924 decreased by £1,367,113 as compared with 1923. The import figures for the two half years follow:

	Jan.-June, 1923		Jan.-June, 1924	
	No.	Value (£)	No.	Value (£)
Touring cars and cabs	11,513	1,840,152	6,033	1,966,691
Commercial vehicles	338	58,262	936	121,413
Chassis (cars and cabs)	4,958	680,097	4,930	594,219
Chassis (commercial)	2,265	354,663	2,394	347,742
Parts	.....	1,093,235	.....	1,730,617
Total	19,074	4,026,409	14,293	3,860,682

The export figures were:

	Jan.-June, 1923		Jan.-June, 1924	
	No.	Value (£)	No.	Value (£)
Touring cars and cabs	940	394,215	4,421	1,209,257
Commercial vehicles	410	339,017	616	365,912
Chassis	902	403,700	1,087	457,544
Parts	.....	527,516	.....	714,083
Total	2,252	1,664,448	6,124	2,746,796

The value of re-exports increased during these two periods from £261,577 to £380,615.

Editorial

Railroads and Buses

IT was not so very long ago when it first dawned upon street railway and railroad companies that the motor vehicle might be turned from a rival into an ally. Today numerous street railway companies are operating auxiliary motor bus services and railroad companies are experimenting with motor railcars.

A new departure has been made recently in the far West, where a railroad company has established a motor bus line to parallel its tracks. It will charge the same fares on the buses as on the trains, and the tickets issued will be honored by both services. The railroad company evidently realizes that by means of the motor bus it will be able to offer a service which would be economically impossible with its railroad equipment. Greater frequency of service and ability to pick up and deposit passengers close to their homes will undoubtedly serve to develop the traffic materially.

In the past the railroads often have protested against competition by motor buses, which operate on the public roads without contributing to any great extent to the maintenance of these roads. They now seem to have come to realize that the good roads movement will go on and that no barriers will be established to the free use of the roads by any suitable vehicles. Road transport is sure to grow in importance as an economic factor as our system of improved highways is developed, and it seems to be a wise move on the part of the railroads to enter this field of transportation while it is still in an early stage of development.

Poor Hand Brakes

TESTS made recently by the Bureau of Standards on about 200 cars picked at random in Washington, with a view to setting safe standards of braking performance resulted as follows (all readings in feet to stop from 20 m.p.h.):

FOOT BRAKES ON DRY ASPHALT

	Number of Cars	Per Cent of Total	Average Distance to Stop
Poor (50 ft. or over).....	32	18	58.05 ft.
Fair (40 to 50 ft.).....	43	23	42.8 ft.
Good (30 to 40 ft.).....	79	44	32.6 ft.
Excellent (30 ft. or under)	27	15	27.36 ft.

Best stop 17 ft., poorest 80 ft., average 45.4 ft.

HAND BRAKES ON DRY ASPHALT

	Number of Cars	Per Cent of Total	Average Distance to Stop
Poor (50 ft. or over).....	107	70.8	90.0 ft.
Fair (40 to 50 ft.).....	17	11.25	42.6 ft.
Good (30 to 40 ft.).....	19	12.6	36.2 ft.
Excellent (30 ft. or under)	8	5.3	29.4 ft.

Best stop 25 ft., poorest stop 200 ft., average 137.6 ft.

Certainly this is not a very creditable record for hand brakes—over 70 per cent classed as poor, only 12.6 per cent as good and but 5.3 per cent making a really creditable performance.

This bears out exactly what has been said in the past about the inadequacy of hand brakes on most American cars. One engineer has characterized them as "nickel plated levers attached to wires with a little bit of faith at the far end." Isn't it time the industry got busy and did something about it?

Speed Drives with Death

THE God of Speed continues to take his toll. The names of Dario Resta and Joseph Boyer, Jr., have been added to the growing list of those daring spirits who have braved the dangers of racing only to get the checkered flag from the Grim Reaper.

David Bruce-Brown, Spencer Wishart, Howard Wilcox, Bob Burman, Gaston Chevrolet, Hughie Hughes, Harry Grant, Harry Endicott and now Resta and Boyer are only a few of the great race drivers who have met death in the last few years in following their dangerous profession. Of these, four have been among the eleven who have won the annual 500-mile race at Indianapolis, showing that even the most skilled of the speed merchants are unable always to escape the pitfalls which surround those who participate in automobile racing.

When all is said and done, each of these dead speed heroes has added his mite to the advancement of the motor car. Weaknesses in construction and advantages of new devices are thrown into the speed crucible and results achieved on the race track often tell engineers more than road tests or laboratory work.

High Priced Cars

IN the earlier years of the industry it was a common practice among purchasers, as they bought one machine after another, to choose a more expensive one each time. In those early days there was still a great deal of difference in the real value that was offered for a given price.

The causes which thus led purchasers to graduate into the higher price classes have now very largely disappeared and if there is any preponderant tendency today it is toward the purchase of lower priced cars. Manufacturers of the more expensive vehicles frequently come out with more moderately priced models, and though there is also a movement in the opposite direction—exemplified in recent months by the appearance of quite a number of eight-in-line models—it is not of the same force or persistency.

Our Industry Today—

Greater Plant Activity May Come Later in Month, Depending Upon the Improvement in Retail Conditions

NEW YORK, Sept. 8—The first week of September shows little change from the automobile producing schedules followed during August. There may come a speeding up later in the month, but that will depend solely upon the development of retail demand. However bright the prospects for fall business may appear in sections of the country where buying interest has been at low ebb for months, producers will not increase operations until definite assurance is given that sales can actually be made there.

This hesitancy will continue to a great extent during the remaining months of the year, the stepping up of manufacturing schedules following very closely the strengthening of the retail sales curve. Present buying is going along on a fairly good level for the season but it is not exceptional in its volume.

Dealers' stocks, except in a few instances, are virtually depleted of old models, where new models have been brought out to supplant the old, and no surplus of cars is reported in other cases where there has been no change in design. The trade has only such stocks on hand as it feels justified in carrying.

This clearing up of a condition that appeared formidable earlier in the year has been due to the slowing up in plant output, reducing production figures for the last three months much below the average for the preceding five and below the level of last year's operations for the same period.

Total So Far 2,529,517

The 268,477 cars and trucks produced in August brings the total for the eight months of this year to 2,529,517 which is 184,910 less than the output for the corresponding period a year ago. Inasmuch as none of the last four months of 1923 dropped below 300,000 in production, there is little possibility that this year's total will closely approach that of last year. Only unprecedented plant activity during the rest of the year could bring the total for the twelve months to the 4,000,000 figure.

The foreign market for American made cars will show notable improvement with the adjustment of economic conditions in Europe. While there may be no immediate increase in the absorbing power of overseas buyers, it is felt that by the beginning of next year American manufacturers will be warranted in augmenting their exports.

MARMON'S AUGUST SHIPMENTS

INDIANAPOLIS, Sept. 10—E. S. Gorrell, vice-president of the Nordyke & Marmon Co., states that August shipments exceeded those of August last year by 13 per cent. This follows a gain of 54 per cent for July against the same period of last year.

September Advance in Output Expected

Detroit Figures on 10 Per Cent Increase Over August—Low Priced Closed Car Popular

DETROIT, Sept. 8—The first week of September finds production on a slightly higher rate without, however, any important upturn from the two preceding months. As the month continues it is generally expected that production totals will rise, but for the present they are holding a pace only slightly improved over the midsummer months. Complete returns on September are expected to show an increase of better than 10 per cent.

There is evidence of greater concentration by car manufacturers on low priced closed cars for the purpose of stimulating the fall and winter market to as high a point as possible. One manufacturer has announced a new closed model which will sell for considerably under the price of the standard five-passenger model and is getting ready to ship in quantity, starting immediately. This car has been brought out largely because of requests of some of the dealer organizations for a low priced genuine closed model. Dealer organizations of other factories also are asking for cars of this type.

New Demand Created

The success of the pioneer of the low priced closed car has been watched closely by dealers. This popularity has been increasing every year and dealers in the other lines want something like it. With one car now out, and another promised for the next four to six weeks, it appears that there is a swing toward cars of this type.

It is entirely certain that the day of the two-door job is far from over, as was asserted some time ago. If anything, it is gaining in popularity all the time, because of price considerations.

A survey of production conditions in the factories at the present time finds two operating at close to capacity, half a dozen others running at a very fair rate, and the others rather distinctly under the rate of the leaders. All are working on what amounts to a retail sales campaign. There is no shipping of cars that are going into stocks, but all practically are to be turned over to an immediate buyer business for the next several months. If there is a sharp upturn in demand, as is generally expected, every factory will be in position to jump into a high production rate. An upturn in business in the fall and early winter is being counted upon to maintain a good rate of operations during the winter months, as without this the feeling is that dealers will not wish to stock against a spring demand.

Another step toward taking the guess out of future business is being taken this week with the announcement of the Chevrolet 6 per cent purchase plan. This is a development of the weekly payment idea, through which deliveries can be prognosticated in advance according as down payments are accumulated by those enrolled. After two years' operation of the plan, the company states it will be in position to accurately gage its business from month to month by maturities occurring under the plan.

Heavy Lumber Buying by Automotive Industry

ATLANTA, GA., Sept. 8—Expansion of manufacturing plans by the automotive industries in the North has resulted the past two or three weeks in a still further improvement in the demand for Southern hardwoods used in the making of bodies. Lumber manufacturers in the Atlanta market report that they are booking orders in greater volume than in more than a year, with inquiries indicating there will be a continued heavy demand for the next two or three months at least.

Items in primary demand include white ash, maple and elm of the thicker dimensions, with the automotive trade buying much further in advance than has been the custom in a number of months, and a growing tendency noted, lumber manufacturers here state, to take better materials than ordinarily.

The principal improvement of late has been in sales to manufacturers in Detroit and Indianapolis, reports of field men for Southern lumber firms in both these centers indicating the automotive industry is contemplating a period of steady production activity the rest of the year.

All lumber prices are holding very firm, with a steady upward tendency noted. Thicker dimensions of white ash, first and second grade, are running $125 to $130, f.o.b. mill, for 10 and 12 by 4 inch, and $155 to $160 for 16 by 4 inch.

Upturn in Fall Business Looked For

Healthy Conditions Reported by Chicago

Some Automobile Makers Are Behind in Orders and Retail Situation Is Bright

CHICAGO, Sept. 8—Reports of being behind on orders are beginning to be heard again with some frequency at automobile factories in this district. Several such plants in the Chicago zone are in this happy situation, following a season of very slow going, which found few orders on hooks, distributors and dealers loaded, and factory stocks too burdensome for comfort.

The status of the industry in this section can easily be seen to be undergoing a steady transition to livelier operations. Retail stocks have been worked down to a pleasing minimum, stocks at factories are down to almost negligible proportions, and 1925 models in most instances are being moved to retailing agencies about as rapidly as they can be turned out.

Ready for Big Business

This does not mean that there is a boom in retail demand, but rather reflects the healthful state of manufacturers with respect to preparations for a greater retail demand should it develop. The activity at the busier factories results from the fact that they must supply the wants of retailers straight from the griddle, rather than from their warerooms, and that there is marked interest in some of the new models.

One or two companies are said to be enjoying sales volumes much greater than anticipated and they may have some interesting evidence in the way of figures along this line to offer later.

However, automotive executives of this district do not look for unusual records to be made in the latter part of the year unless it is in isolated and limited instances. What they look for and what they desire is a stable period, with conditions swinging back to normal and with a sufficient volume of business in the remaining months to offset losses incurred during the depression. Profits are sure to be reported for the year on the whole in the ultimate balance, but this territory generally will not show the profits of last year.

Improvements and enlargements of dealer organizations constitute important orders of the day. One of the most elaborate movements in this direction is told in word from Moline to the effect that Velie expects to increase its dealer organization by 25 per cent within the next 60 days. The company is considerably behind on orders, as is the case with several others.

Conditions have not been sufficiently stimulated as yet to bring about a general stepping up by parts and accessories, but these divisions are toning up and preparing for a demand that everyone feels certain will develop before long.

The Week in the Industry

APPERSON coming to the relief of the financially crippled Haynes and offering to operate the Haynes plant and produce Haynes cars must appeal to the sentimental side of the industry. It will be remembered that it was the Apperson brothers who built Elwood Haynes' first car more than a quarter of a century ago, and that for several years the two interests traveled along most peacefully in double harness. Then came the split which produced two powerful companies, with resulting rivalries. Now the hatchet is buried.

Another feature of the week has been the first step in the liquidation of the Lafayette Motors Corp., which removes from the high-priced field a car that started with the brightest of prospects. Competition in that class, though, is so severe that even the business sagacity of C. W. Nash failed to save the Lafayette.

Directors of the National Automobile Chamber of Commerce feel there is no need of contributing $25,000 toward the promotion of a series of sales congresses to be promoted by the National Automobile Dealers Association. The N.A.C.C. says that most of the factories have educational selling plans for their dealers and that any supplementary general activities are up to the dealers' association.

Satisfactory reports as to present conditions in the automotive industry are coming in from manufacturers and dealers alike. Production is moving smoothly and September should exceed August by 10 per cent. A significant sign is the Ford statement that its dealers are wiring in for increased shipments and that in the last 10 days of August sales exceeded the preceding 10 days by more than 900 cars a day.

Turning from the automobile to the aeroplane, one cannot help but thrill with pride over the success attained by the round-the-world flyers. The hardest part of the journey has been completed and the dash down the home stretch to the Pacific Coast is one that will make the intrepid pilots realize how their countrymen really feel about their great performance.

Ohio Bright Spots Encourages Industry

Car Manufacturers in Cleveland Report Continued Good Business—Rubber Men Active

CLEVELAND, Sept. 8—The most promising business report emulating from the Cleveland district in a good many months, so far as the automotive field is concerned, comes from the Stearns and the Peerless officials this week.

The Stearns company asserts that its Cleveland factories are being operated to capacity, with every indication of the level being maintained for some time to come. Peerless states that the present business is very good and that a ready market is being found for the output of the local plant.

The other major producers in the Cleveland district have not noted any great change in conditions since the report of last week. Jordan asserts that its business is running along at a nice pace, which balances well with a like time of year for 1923.

Rollin, Cleveland, White Motor, Sterling-Knight and others announce that orders are continuing on about a par with those received in the previous seven-day period. Employment officials are continuing their recent hiring movement on a limited scale, indicating that production is gradually going upward, it is said.

Activity in Toledo

From the standpoint of a given community the improvement in the business of the Willys-Overland at Toledo is probably having the most noticeable effect. The company has re-hired better than 1500 of its former employees, which is said to be bringing back business confidence in all activities in that city.

While such firms as the Fisher Body are not operating to full capacity, yet the healthy condition of these houses is illustrated by their building activities. Fisher has, during the summer, spent considerable money on new equipment. At the present time the firm is installing the very latest style of conveyor equipment in some of its plants not already provided with it.

The rubber men of Akron are generally agreed that conditions are much better than they were 60, and even 30, days ago. The production of the major plants is already on the increase and will show a better total for September than for any like period this summer, it is said.

The only element which has given the business upturn a considerable setback has been the weather. Tradesmen claim that the cool, rainy spell has a definite restraining power on buyers.

Apperson May Build Haynes Automobile

Proposes Plan to Take Over Plant and Operate It Under a Five Years' Lease

KOKOMO, IND., Sept. 8 — Following application made by Chicago creditors asking the Federal Court to declare the Haynes Automobile Co. a bankrupt there has been a get-together on the part of the creditors which may result in two pioneers of the industry being hooked up again in business harness.

This coalition is made possible through the offer made to the Haynes directors and creditors at Friday's meeting, when the Apperson Auto Co. offered to operate the Haynes plant, continuing the line of cars now manufactured. This met with the approval of the Haynes directors and creditors but is subject to the approval of the Federal Court.

As the plan is outlined, the Apperson interests will lease for a period of five years the physical assets of the Haynes plant, with privileges of a five-year renewal. Don C. McCord, president of the recently reorganized Apperson company, announced that if the plan is approved by the court a new corporation to be known as the Haynes Motors Corp. will be organized immediately to operate the plant.

Settlement with Creditors

A settlement with Haynes merchandise creditors and a continuation of all Haynes commitments to other manufacturers were parts of the reorganization stipulations.

If this deal goes through it will bring together the houses of Haynes and Apperson, which started the manufacture of automobiles in 1895 as the Haynes-Apperson Auto Co., the Haynes-Apperson car, designed by Elwood Haynes being produced by Elmer and Edgar Apperson. They came to a parting of the ways in 1903, when the Appersons formed their own company, the Apperson Bros. Automobile Co., making the Apperson, and Elwood Haynes organized the Haynes company, making the Haynes.

Consolidated Aircraft Moves Plant to Buffalo

BUFFALO, Sept. 10 — The Consolidated Aircraft Corp. of East Greenwich, R. I., will move its main plant here and will begin operation about Oct. 1 with an initial working force of 250 persons.

The Greenwich company has purchased the aircraft business of the Dayton-Wright company at Dayton and also has taken over the Gallaudet Aircraft Corp. of Greenwich. It will have quarters in the old Curtiss factory in Elmwood Avenue. The new firm has a $500,000 contract for airplanes and parts for the United States Government. This contract will be completed in Buffalo.

SMALLER TIRE STOCKS REPORTED BY DEALERS

NEW YORK, Sept. 10—Indications that tire dealers are reducing their stocks are shown in the answers to questionnaires sent out by the National Tire Dealers Association on July 31. The answers have all been received, with a large increase in the number of members reporting. They show the following conditions:

Inventories—A very large decrease in tires and tubes on hand.

Sales—A very satisfactory increase.

Purchases—About fair.

Collections—About fair.

Business Conditions—Majority of members reporting say they are about fair.

Mapor R. H. Fleet, head of the industry, late yesterday completed arrangements for its transfer to Buffalo. The deciding factor in the decision was Buffalo's large supply of skilled aircraft labor, developed at the Curtiss plant during the war.

Major Fleet stressed the importance of immediate establishment of a properly equipped flying field here and said his company gladly would pay its share of the cost of maintenance through rental of hangar space and such fees as may be imposed by the city.

Drive-It-Yourself Firm Has Capital of $500,000

CHICAGO, Sept. 8—The production of a drive-it-yourself car by the Yellow Cab Manufacturing Co. has been followed by the Chicago Yellow Cab Co., Inc., acquiring an interest in the Yellow-Drive-It-Yourself System, which has been chartered in Delaware with a paid-in capital of $500,000.

The Delaware concern operates more than 300 cars out of three garages in Chicago and one in Louisville. It has ordered 1000 cars from the Yellow Cab Manufacturing Co. for delivery within the next year, of which number 200 will be put in service in Chicago.

Bank Acts as Receiver for Detroit Castings

DETROIT, Sept. 10 — The Security Trust Co. is acting as receiver for the Detroit Motor Castings Co. under two petitions, one asking dissolution, filed by directors of the company; the other a petition in bankruptcy filed by creditors.

The company has been manufacturing accessories for small cars for the past several years and was for a long period a manufacturer of bronze and aluminum castings for the industry. It changed to accessory manufacture when the company was reorganized about two years ago.

Canadian Ford Made 63,554 Cars in Year

Total of 81,999 Units Produced in Twelve Months That Ended July 31

DETROIT, Sept. 8—The Ford Motor Co. of Canada manufactured 63,554 cars, 14,672 trucks and 3773 tractors in the year ending July 31, 1924. This total of 81,999 compares with 70,328 in the preceding year and 45,000 in the year ended July 31, 1922. Sales totaled $38,556,182, against shipments of approximately 71,000 units, or $543 a unit.

While net profits have not been given out as yet, it is expected that despite the larger production they will not be as high as the preceding year. Higher costs are said to have reduced profits materially, so that it is said the total will be about $4,200,000, compared with $5,400,000 the year before. This would place the returns at about $60 a share as against $72.94.

The Canadian Ford plant resumed operations at Ford City, Ont., yesterday, on a four-day-a-week schedule and eight hours a day and employing 4000 men.

5200 Taxicabs in Paris Equipped with Balloons

PARIS, Sept. 1 (*by mail*)—Balloon tires are being fitted to 5200 Paris taxicabs operated by the Compagnie Autoplace and the Cie Generale des Voitures de Place, the two largest concerns of their kind in the French capital. Both concerns are using Michelin "comfort" tires of 775 by 145, these replacing high-pressure tires of 765 by 105.

The Autoplace company, with 3200 cabs in service, uses detachable wood wheels, which are now being cut down and fitted with new clincher rims to take the low-pressure tires. Michelin steel disc wheels being used by the Voitures de Place, these are being changed. This latter company is at present transforming its fleet of 2000 cabs from twin-cylinders with high-pressure tires to four-cylinder models with four-wheel brakes and low-pressure tires.

The Autoplace company one year ago converted all its cabs from twin-cylinder models to four-cylinders with front-wheel brakes and has now found it necessary to add balloon tires in order to meet competition.

Citroen has a new fleet of taxicabs ready to be put on the streets with balloon tires as standard equipment.

COMER SECOND AT ALTOONA

ALTOONA, PA., Sept. 8 — Following protests of positions in the Labor Day speedway race, there has been a recheck of the scoring which has changed the placing of Tommy Milton and Fred Comer, the latter being given second place.

Willard C. Lipe Dies; Pioneer Gear Maker

Was Vice-President of Brown-Lipe Gear Co. at Time G. M. C. Bought It

SYRACUSE, N. Y., Sept. 8—Death has claimed Willard C. Lipe, one of the pioneers of the gear manufacturing industry, who was an important factor in the development of both the bicycle and the automobile industries. Suffering from a complication of diseases for several years, Mr. Lipe died in the Washington Sanatorium, Takoma Park, Washington, D. C., aged 63.

Until General Motors bought the Brown-Lipe Gear Co. two years ago, Mr. Lipe was vice-president. With his brother Charles, who died in 1895, he started the manufacture of gears, later becoming associated with Alexander T. Brown in the Brown-Lipe company, making changeable bicycle gears.

Twenty-five years ago the company started manufacturing equalizing gears and in 1910 another company, entirely apart from the Brown-Lipe company, was formed — the Brown - Lipe - Chapin Corp., of which Mr. Brown was president, Mr. Lipe vice-president and H. W. Chapin secretary-treasurer and general manager. Also identified with the concern was Charles S. Mott of Flint, Mich.

In December, 1922, the corporation passed from the hands of the three Syracuse men who developed it to General Motors. Mr. Lipe and Mr. Brown severed their connection with it, but continued their control of the old Brown-Lipe Gear Corp.

Electric Association Prepares for Meeting

CLEVELAND, Sept. 10—The Automotive Electric Association has completed its program for the summer meeting to be held at White Sulphur Springs, W. Va., Sept. 17-20. The first day will be given over largely to committee meetings.

The morning of the second day a general session of all members and guests will be held, which will be addressed by B. L. Shinn, special representative of the National Vigilance Committee of the Advertising Clubs of the World, and C. P. Shattuck, field service representative of the Chilton publications. The latter's subject will be "What Can Be Done To Promote Better and More Profitable Service."

Specialized electrical service will be discussed in the evening of the second day. On Friday, the 19th, association members will meet representatives of the lamp manufacturers, and there also will be reports made by the Standardization Committee, of which T. L. Lee is chairman, and the Legal and Patent Committee, headed by Victor S. Beam.

On the last day there will be a meeting of the board of governors and a report of the Service Managers and Advertising committees, with discussions. The meeting will end with an executive session, open only to association members.

MANY PENNSYLVANIA FARMERS OWN CARS

PHILADELPHIA, Sept. 11—Information gathered from more than 700 crop reporters in Pennsylvania during the last 10 years shows that the ownership of automobiles by farmers in this State has increased from 7 per cent in 1915 to 72 per cent in 1924. These figures do not include trucks.

There are 202,000 farmers in Pennsylvania, and 72 per cent of these would mean 145,440 automobile owners. Some of these undoubtedly have more than one passenger car. Assuming only one car a farm, at a valuation of $500 per car, the State's farm investment in automobiles would be $72,720,000.

It is probable that these cars average 5000 miles a year travel. If a cost of 6 cents a mile be assumed, or $300 per car, this would be $43,632,000 for annual maintenance.

Delaware County has 92 farmer automobile owners, leading the State in this regard. Philadelphia County comes next, with 88.

155,000 Dodges Built and 142,000 Retailed

DETROIT, Sept. 10 — In the nine months ended July 1 Dodge Brothers manufactured 155,000 cars and on that date had sold 142,000 at retail. Against 16,000 in stock available for delivery, there were more than 12,000 unfilled signed retail orders in the hands of the company's dealers. In making these sales Dodge Brothers dealers had only 15,400 used cars on hand July 1.

These statements are contained in a booklet, "The Sound Progress of Dodge Brothers Business," issued by the company, in which President F. J. Haynes makes the following statement:

During a period when the general trend of the automobile business seemed quite definitely downward and accumulation of cars in dealers' stocks was general, Dodge Bros. were marketing the largest production in their history with no substantial accumulation of cars. In fact, for these nine months, our greatest production period, we have had, week for week, a consistently smaller number of cars in the hands of our dealers than for any other corresponding period.

As an index to the manner in which this unusual retail business has been conducted, it is interesting to note than on July 1 there were only 15,400 used cars distributed among our 3500 dealers. This shows very clearly that our retail business is uniformly on a clean, profitable basis.

Velie Survey Shows What Public Wants

Style Heads List with Four-Wheel Brakes Next and Balloon Tires Third

MOLINE, ILL., Sept. 8—A survey in the trend in demand was made by the Velie Motors Corp. when it recently announced its new line, disclosing that the public favors style, four-wheel brakes, balloon tires and mechanical excellence in the order named.

In the week in which this survey was made, it is said that 255,000 persons visited Velie salesrooms in the larger cities, each person being questioned by the salesmen, the results as announced by the Velie company being as follows:

1—Style was the one thing the people were interested in above all else.

2—Lower priced closed cars were next in demand.

3—Mechanical excellence was demanded off hand by 50 per cent of the public.

4—More than 90 per cent demanded either balloon tires or four-wheel brakes, and about 40 per cent wanted both.

In the larger cities, such as New York and Chicago, the company says 90 per cent asked for either balloons or four-wheel brakes, and about 40 per cent wanted both.

This survey follows a questionnaire sent out by the company through an anonymous source, to 10,000 dealers on balloons and four-wheel brakes. More than 1200 replied, and it is said that the dealers by a ratio of 5 to 1 favored balloons above all other features. Four-wheel brakes were favored 3 to 1. In sections where roads were good, 100 per cent favored both, while in hilly sections balloons were favored above four-wheel brakes. In cities where traffic is heavy, four-wheel brakes got the vote by 12 to 1.

Country dealers, 7 to 1, reported that both four-wheel brakes and balloons are necessary to the success of the medium priced car, the Velie company states.

Hayes Wheel and Klaxon Increasing Production

INDIANAPOLIS, Sept. 10—The Hayes Wheel Co. is shipping two carloads of machinery from its Flint, Mich., plant to its wheel works at Anderson and will resume the manufacture of automobile wheels there at once, confining itself for several months to the production of hickory billets for spokes. The increased production will employ 200 more men at once and more later.

Equipment for the manufacture of Klaxon products is being moved from New Jersey plants to the main factory of the Remy Electric Co. at Anderson, where Klaxon horns and other specialties will be made in increasing quantities. The working force now numbers 1200 and indications are that 2000 will soon be employed.

Lafayette Starting to Wind Up Affairs

Part of Its Assets Have Been Sold to Ajax—Rest Will Be Disposed Of

NEW YORK, Sept 8—Action on the part of the stockholders of the Lafayette Motors Corp., at a special meeting held in Baltimore the latter part of last week, has resulted in the sale to the Ajax Motors Co. of Racine, Wis., a Nash subsidiary, of all of the Lafayette assets except cash, receivables, securities, cars in stock and name and good will for $225,000. The meeting at the same time authorized the directors to dispose of all of the other assets at the best terms obtainable.

This step means the dissolution of the Lafayette company and steps will be taken at once to wind up its affairs, it is said. The servicing of the cars now in the hands of owners will be taken care of by the Ajax company under the deal made.

Discourage Further Effort

Stockholders ordered the sale of the assets of the company following a statement issued by the directors to the effect that despite the recent reorganization and the expenditure of $2,000,000 put into the treasury by the Nash Motors Co. in June, 1922, they could not recommend to the Lafayette stockholders the putting of more money into the company in a further effort to establish the business.

"The proceeds of the sale, together with the cash in hand and other assets not included in the sale," the directors said "would enable the company, after settlement of accounts with merchandise creditors, to pay a substantial percentage—though less than face value—of its bank loans. The bank creditors have indicated that they will accept such a settlement. Necessarily, this would leave nothing for the stockholders, including the Nash company, in return for the $2,000,000 subscribed by it at the date of the reorganization."

Formerly at Mars Hill

Originally the Lafayette Motors Corp. was the Lafayette Motors Co., with a factory at Mars Hill, Ind., building a high priced car designed by D. McCall White and with C. W. Nash financially interested in the company. In the early part of 1923, following the reorganization into the Lafayette Motors Corp., the plant was removed to Milwaukee, more money was put in and a strong effort made to establish the car among the leaders in its class.

The reorganization was under Maryland laws and the capital stock consisted of 30,000 shares of common on no par value, $3,000,000 7 per cent cumulative first preferred and $4,000,000 7 per cent non cumulative second preferred. The new corporation purchased all of the property and assets of the old company, assumed its debts and liabilities and issued to the old company $4,000,000 par value second preferred stock, having a book value of $900,000. The second preferred stock was distributed to the stockholders of the predecessor company as final liquidation dividend.

The last financial statement, issued at the end of 1922, six months after the reorganization, showed that the company only had $156,746 cash, $128,057 receivables and inventories of $1,015,448. Against this were three-year bank notes of $950,000, accounts payable of $194,260 and notes payable of $25,000.

Officers of the company are: J. J. Storrow, chairman of the board; C. W. Nash, president; E. C. Howard, vice-president and secretary; D. F. Edwards, vice-president and treasurer; F. W. Allen, J. J. Storrow, C. W. Nash, D. F. Edwards and E. C. Howard, directors.

Chamber Contribution to Dealer Body Denied

NEW YORK, Sept. 9—Directors of the National Automobile Chamber of Commerce have decided that they cannot grant the request of the National Automobile Dealers Association for a contribution of $25,000, to be used by the N. A. D. A. for the promotion of a series of sales congresses in the leading cities of the country.

In asking for the contribution the N. A. D. A. stated it would put in a similar amount, starting the circuit at Atlantic City this month.

Announcing its decision today, the Chamber made the following statement:

"It developed at the meeting of directors on Sept. 4 that most automobile manufacturers do, and others are planning to, have educational selling plans for their dealers, based on their own sales policies.

"It was felt that any general activities supplementary to that of the individual factories are purely the function of the dealers' association and not one to which the funds of the manufacturers' organization should be voted."

N.A.D.A. Plans Go Ahead

ST. LOUIS, Sept. 11—C. A. Vane, manager of the National Automobile Dealers Association, declares that despite the action of the National Automobile Chamber of Commerce in declining to contribute $25,000 toward the promotion of the sales congresses, the N.A.D.A. will go ahead with the first six meetings anyway.

These will be held at Atlantic City, Boston, Buffalo, Cleveland, Chicago and Milwaukee. If sufficient support is received from the dealers, the whole program will be carried to completion.

BATTERY MEETING POSTPONED

CHICAGO, Sept. 10—The fall meeting of the National Battery Manufacturers Association scheduled for Sept. 19 and 20 has been postponed one week. It will be held Sept. 26 and 27 at Hotel Clifton, Niagara Falls on the Canadian side.

Adams Axle Absorbed by New Process Gear

Henninger Is Administrative Officer—Merger of Boards Not Yet Decided

SYRACUSE, N. Y., Sept. 10.—The New Process Gear Co. has absorbed the Adams Axle Co., a subsidiary of the Durant Motors, Inc., which was formed here several months ago. Anthony A. Henninger, vice president and general manager, has taken over the merged companies as administrative officer.

The administrative force of the Adams Axle has been eliminated, but there has been no change in either the personnel or location of the producing plants. It has not been decided whether the boards of directors of the two concerns will be merged.

Mr. Henninger took over the joint administration and executive control. The step was taken, according to Mr. Henninger, to reduce the overhead. He also stated that the business of the two companies has increased between 12 and 15 per cent during the last 30 days.

Ralph H. Rosenberg, factory manager, will remain with the new organization, which will be known as the Adams Division of the New Process Gear Co.

Lower Chandler Dividend Puts Stock on $3 Basis

NEW YORK, Sept. 9—Directors of the Chandler Motor Car Co., at their meeting today, reduced the quarterly dividend from $1.50 to 75 cents a share, which places the stock on a $3 annual basis, against a previous rate of $6.

With the announcement of the halving of the dividends a statement from the company said:

During the first six months of 1924, the business of the company compared favorably with that of most automobile companies. The outlook for the last half of the year is such as to make us reasonably optimistic. The company is in a sound financial condition and is making the best car in its history, but we believe the best interests of the stockholders will be served by a conservative policy in reference to dividends and feel that the disbursement should be kept well within the earnings of the company.

There are no excess stocks of Chandler cars either at the factory or in the hands of Chandler retailers, and we are therefore in excellent shape to profit by the revival of business which seems at hand.

BODY FACTORY BURNS

DES MOINES, Sept. 10—Fire which broke out in the factory of the Kratzer Carriage Co., manufacturer of automobile and truck bodies, threatened for a time to destroy the entire plant. Before the fire was finally brought under control damage estimated at $100,000 was done. According to C. S. Walker, president of the company, insurance will cover most of the loss sustained.

Convention Program Arranged by M.A.M.A.

Different Chairman for Each Session to Be One of Features of Cleveland Meeting

NEW YORK, Sept. 10—Plans for the annual convention of the Motor and Accessory Manufacturers Association, to be held in Cleveland Oct. 15-17, are rapidly nearing completion. Chairman E. P. Chalfant and his committee already have a definite program outlined and most of the speakers selected for what is expected to be the best affair of its kind ever promoted by the association.

As already announced, the convention will have sessions devoted to the business outlook, to improved merchandising methods, to foreign trade and to the handling of credits. Each of these sessions will be handled by a different chairman, with G. Brewer Griffin, president of the association, presiding at the opening session, when the subject will be "The Outlook for Better Business."

Outlook to Be Discussed

One of the speakers at this session will be an internationally known financial authority who will talk on the general outlook. This will be followed by a three-part discussion of the automotive outlook by Alfred Reeves, general manager of the National Automobile Chamber of Commerce; W. O. Rutherford, president of the Rubber Association of America and a M. A. M. A. director, and President Griffin.

E. P. Chalfant, chairman of the board of the Gill Manufacturing Co., will preside at the second day's session, which will be devoted to "Better Merchandising as the Foundation of Better Business." This session will continue morning and afternoon, with speakers on selling through the jobber, distributor and other channels, and with a talk on tie-up of manufacturers' and wholesalers' advertising activities. One of the speakers will be J. H. Mehan, manager of the Research Club, an organization of non-competing jobbers, who will talk on "The Jobber's Place in the Automotive Selling System."

Second Day's Program

On the evening of the second day F. E. Titus, second vice president of the B. F. Goodrich Co., will preside over a discussion on "The Foreign Trade Opportunity; How to Take Advantage of It." Speakers will talk on the foreign trade outlook and on selling the foreign trade through an export department and through an export sales agent. One of the speakers will be J. F. Kelly, export manager of the Electric Storage Battery Co.

The third day will be given over to credit work, with a manufacturers' and foreign trade credit session, the morning presided over by M. A. Moynihan, secretary and treasurer of the Gemmer Manufacturing Co., and a session on jobbers' credits in the afternoon, with R. S. Harvey, vice president of the Reese Manufacturing Co., as chairman.

Business in Brief

Written exclusively for AUTOMOTIVE INDUSTRIES *by the Guaranty Trust Co., second largest bank in America.*

NEW YORK, Sept. 10—Reports of gains in industrial and trade activity which have been current for some weeks are confirmed by the monthly figures for August which have become available. Gradual but steady improvement continues. A feature of the situation last week was a noticeable seasonal tightening of money rates, which had remained practically stationary at extraordinary low levels for about two months.

The official report on the cotton crop, based on condition Sept. 1, forecasts a total yield of 12,787,000 bales, which compares with the earlier estimate of 12,956,000 bales and last year's harvest of 10,128,000 bales. The condition is estimated at 59.3 per cent of normal, which indicates less than the average deterioration in August for the last 10 years. The publication of the report was followed by a break of about a cent a pound in the price of cotton on Monday of this week.

The production of pig iron in August amounted to 1,891,145 tons, comparing with 1,784,899 in July and 3,449,493 in August of last year. The average daily output was 61,005 tons, as against 57,577 in July and 111,274 a year ago. The output of steel ingots totaled 2,541,506 tons, which compares with 1,869,416 in the preceding month and 3,695,788 in August, 1923, while the daily average of 97,750 tons compares with 71,901 in July and 136,881 a year ago.

A new high record for the year was reached by car loadings in the week ended Aug. 23, which numbered 982,248, as against 952,888 in the preceding week and 1,069,915 in the corresponding period of last year. Net operating income of Class 1 railroads in July was $74,027,600, which represents an annual return of 4.28 per cent on the tentative valuation.

The number of commercial failures reported for August by R. G. Dun & Co. was the smallest for the year to date, the total being 1520 as against 1615 in July and 1607 in June.

Morris Cuts Price and Adds Equipment

Other British as Well as Foreign Makers May Bring Their Lists in Line

LONDON, Sept. 2 (*by mail*)—As "an answer to foreign competition," Morris Motors, Ltd., which supplies 30 per cent of the demand for home manufactured automobiles, has announced the following reductions as from Sept. 1:

11.9 H.P. Morris-Cowley

	Old Price	New Price
Two seater.....	£198	£175
Occasional four seater..	£215	£185
Four seater.....	£225	£195

14.28 H.P. Morris-Oxford

	Old Price (Without Front Brakes)	New Price (With Front Brakes)	New Price (Without Front Brakes)
Two seater.	£300	£260	£250
Four seater.	£320	£285	£275
Coupe	£355	£305	£295
Cabriolet ..	£385	£365	£355
Salon	£395	£385	£375

In addition to price reductions, Dunlop cord balloon tires, full insurance, augmented equipment, and improved coachwork are included.

In the case of the Morris-Cowley models, the equipment now includes shock absorbers, driving mirror and windscreen wiper, in addition to the previous equipment provided. The four-seater is also provided with a windscreen for the rear seat passengers.

The coachwork improvements include an entirely new type of body on the Morris-Cowley two-seater, and the lengthening of the Morris-Oxford chassis by 6 in.

The reduction in the case of the Morris-Cowley two-seater is 12 per cent; of the occasional four-seater, 14 per cent; and of the four-seater, 13 per cent. The Morris-Oxford two-seater is reduced 17 per cent. Reductions are made in the Morris van.

It must be regarded as extremely likely that other leading British car manufacturers will do their utmost to come into line with the Morris cuts, and it is probable also that imported makes competing with the Morris range will also reduce their prices in the near future. Calthorpe and Standard have already followed the Morris lead.

Meachem Gear Acquires Weekes-Hoffman Factory

SYRACUSE, Sept. 10—The Weekes-Hoffman gear plant has been taken over by the Meachem Gear Corp. of this city, it has been officially announced. This is an expansion of the industry built up by J. F. Sabine Meachem and T. G. Meachem, whose father, Thomas Meachem, was one of the pioneers in the automobile and industrial gear industry in this part of the State.

G.M.'s Freight Bill Reached $55,000,000

Sum Paid Out in 1923 Noted in Corporation's First Report of Kind

NEW YORK, Sept. 6—What the automotive industry means to the railroads is clearly brought out by the General Motors Corp. in a report issued this week, showing that in 1923 the freight charges upon the 800,000 cars and trucks manufactured by its several divisions—Buick, Cadillac, Chevrolet, Oakland, Oldsmobile and G M C trucks—and the material from which these automobiles were made totaled $55,000,000. And at that one-fourth of the cars and trucks were driven away from the various plants under their own power.

Association Recently Formed

This is the first time the corporation has attempted to compile statistics of this nature, and the effort was made possible by the recent formation of the General Motors Traffic Association. At the head of the association is Alfred H. Swayne and included in its membership are the corporation's traffic managers.

Mr. Swayne also reports that 142,850 freight cars were required to bring the raw materials, totaling 7,223,493,170 tons, into the General Motors plants, and 197,487 to transport 4,219,290,605 tons of finished motor vehicles to the selling centers. This does not include less-than-carload lots, which would have brought the total up from 340,337 to approximately 375,000.

Quoting the statistics of Class 1 railways for 1923, compiled by the Interstate Commerce Commission, Mr. Swayne shows that the automotive industry contributed 50 per cent more freight, measured in dollars, than wheat, which he says is generally referred to as "the backlog of the railroad freight business of this country."

Pay Highest Freight Rate

"It is not generally known that automobiles pay the highest rate per ton mile of any carload traffic and that taken as a whole the railroads find the motor car industry one of their most profitable sources of revenue," comments Mr. Swayne, who then quotes the following table showing the six leading commodities compared with the motor car business:

Commodity	Weight in tons	Revenue	Per Cent of Total Revenue
Bituminous coal	692,455,000	$856,242,000	18.5
Lumber, staves and heading	140,902,000	329,574,000	7.1
Anthracite	140,000,000	226,933,000	4.9
Petroleum products	76,213,000	206,264,000	4.5
Iron and steel, bar steel and structural	59,557,000	156,158,000	3.4
Automobiles and trucks	16,441,000	142,319,000	3.1
Wheat	36,800,000	93,019,000	2.0

Commenting on the table, the General Motors executive says:

"It is interesting to note that while the motor cars contributed over 3 per cent of the total railroad revenues in dollars, the weight in tons was but seven-tenths of 1 per cent. And further, in studying these figures it must be remembered that the totals for the automobiles are for finished cars and trucks shipped out of the motor car plants, but do not include the dollars and the volume of traffic composed of raw materials hauled into motor car plants by the railroads to be converted into finished automobiles.

"If it were possible to do this, it appreciably would reduce the totals for such commodities as coal, lumber, steel, etc., and would increase proportionately the position of the automobiles, bringing them into a relatively higher position in this tabulation."

Blue Sky Law Is Basis for Doble Prosecution

SAN FRANCISCO, Sept. 10—The troubles of the Doble Steam Motors Corp. of Oakland are again being aired with the opening of the trial of F. G. Cox and W. E. Barnard, fiscal agents of the company, whose methods of selling stock have been attacked by the State corporation commissioner.

Messrs. Cox and Barnard, together with the officials of the company, are accused of violating the corporate securities act. They are alleged to have sold illegally hundreds of thousands of dollars of stock in excess of the amount for which a permit was held by them under the Blue Sky laws.

The two men will be tried on ten counts. The first count accuses them of a violation of the securities act, in that they are alleged to have made sales of Doble stock after a permit issued to them had expired. Nine other counts in the indictment allege specific sales by Messrs. Cox and Barnard to stock buyers.

BODY COMPANY REORGANIZED

ST. LOUIS, Sept. 10—The Vehicle Top & Supply Co. has been reorganized as the Vehicle Top & Body Co. William E. Clarke, president of the company for many years, will be general manager and Louis E. Lueschaw will be production manager. The company will specialize in commercial bodies, general automobile trimming, seat covers, upholstery and automobile painting.

ROAD IN AFRICA OPEN

FORD, ONT., Sept. 8—According to word received by Ford Motor Co., Ltd., Canada, the road linking Buta with Aba and Rejaf in Central Africa is now ready for public motor traffic. The opening of this road makes it possible to travel across Central Equatorial Africa from Mombasa on the East Coast to Boma on the West Coast in approximately 22 days—a total distance of 2992 miles.

Smaller Tire Makers Expand on Earnings

No New Financing in Cases of Four Companies Increasing Their Capacity

AKRON, Sept. 10—The India Tire & Rubber Co. is the fourth smaller rubber company within the last two months to announce plans for an increase in production capacity.

The company will start at once on a new 60 x 160-ft. building which will increase the daily capacity of the plant from 900 to 1500 tires a day. The building will be completed and machinery installed before the end of the year, according to present plans.

India has been behind order for several months and at the present time has more than two months' business on its books. More recently its truck tire department has experienced an increase in business and this increase has played an important part in reaching a decision to increase capacity.

Other companies which are in the midst of expansion programs are the General Tire & Rubber Co. and the Mohawk Rubber Co., while the Lambert Tire & Rubber Co. of Barberton has completed an expansion program which increased its plant at least 30 per cent.

The manner in which the so-called smaller companies have increased their production capacities is an answer to the frequently repeated declaration that the larger companies will in time be able to crush the smaller producers.

In the case of each of the four companies expanding production, the increases made and planned are being financed entirely out of earnings. Two of the companies have paid regular common dividends for several years. One company has never failed to pay its common dividend, and one of the companies recently started payment on its common stock.

None of the companies now expanding has any outstanding bond indebtedness or large long bank loans.

Walker Changes Weights but Not Its Price List

CHICAGO, Sept. 8—The Walker Vehicle Co. of Chicago has announced a revision of weights for its line of electric commercial trucks, the changes affecting all but one unit. It was erroneously stated in AUTOMOTIVE INDUSTRIES of Aug. 28 that the Walker company had increased its list prices. No change in prices has been announced. The following table gives the old and new weights:

Model	Tons Capacity	Old Weight	New Weight
12	½	1,900	1,900
15	¾	2,600	2,800
22	1	2,800	3,000
42	2	3,800	4,200
P	3	5,600	6,000
N	5	6,400	6,700

British Sales Good Despite Tariff Cut

Light Car Manufacturers Busy During Season That Is Usually Slack

LONDON, Sept. 2 (*by mail*)—The Junior Car Club recently received a cable inquiry from a well-known American manufacturer for all particulars regarding the 200-mile light car race to be held in England on Sept. 20. This is regarded as providing one more proof that America means to take up the manufacture of light cars. American cars entering the race will have to compete against Alvis, Austin Sevens, Salmsons, Horstmans and Aston-Martins.

Threat Not Taken Seriously

Home light car manufacturers are inclined to believe that the threat to their particular market by America is not to be taken seriously, mainly because of the 15 years' start they have over American manufacturers in producing this type of vehicle. However, a proposition to dealers has recently been advertised in blind form in the trade press. This American car is described as being an absolutely new model, unsurpassed in price and value.

Despite all that has been said with regard to the ruin of the British automobile industry, it must be stated that light car manufacturers are enjoying a season of prolonged activity, factories now being busy which, at this time of the year, are usually slack.

The monopoly of demand is not restricted to the light car. Makers of automobiles ranging between £700 and £1000 in price report that no decrease in sales has been experienced.

The drastic curtailment of orders for parts that was experienced when the removal of the import duties was announced in May have now been followed by increased orders. It is now anticipated that the home industry will enjoy an increased output during the coming year, although not so much as if the duties had been retained.

Small Car Maker Not Badly Hit

It is thought that the small British manufacturer who has hitherto specialized in individual requirements will after all not be badly hit by the abolition of the duties. A considerable number of buyers in this country will always insist on having "something different" from the average type of car seen on the road, and this section of buyer seldom troubles about cost price. For this reason it is thought that relatively few of the smaller manufacturers will go out of business, although it is probable that several of the less known concerns will be obliged to close down ultimately.

The article that recently appeared in "Commerce Reports" covering the British market has met with considerable criticism here. No one on this side is prepared to agree that the demand of this market will increase as rapidly as the writer anticipates. It is certain, however, that this market will expand, but this expansion will be gradual, and will be participated in by both domestic and imported makes.

Since the duties were abolished Austin shares prices have increased materially on the Stock Exchange. Belsize, B.S.A., Crossley, Humber, Leyland, Napier, Riley, Sunbeam-Talbot-Darracq, Singer, Star, Vulcan, and Wolseley also show improvement.

Since Aug. 1 prices have remained practically unaltered, the most noteworthy change being a 5 per cent cut by Ford. G. W. K. prices have been reduced from guineas to pounds.

In view of the fact that July was the last month during which the McKenna duties existed, the British import and export figures for this period are of particular interest. During this month 967 cars and trucks and 663 chassis were imported, against 720 and 515, respectively, during July, 1923. The value of these imports, inclusive of parts, for July, 1924, was £533,834, against £298,151 for July, 1923.

Government Subsidy Increased

The Government subsidy on certain makes of 30-cwt. trucks has been increased to £120 over three years. The new mass-produced Morris one-tonner is being turned out at the rate of 100 vehicles a week. This plant is capable of turning out 250 trucks each five-day week.

The question of designing motor vehicles with a view both to reducing the cost of road transport and the cost of road upkeep is receiving serious consideration. For instance, the Research Department of the London General Omnibus Co. contemplates substituting the standard steel wheel now used on its buses with one constructed of aluminum alloy.

The Society of Motor Manufacturers and Traders has announced that, if a commercial vehicle show is held next year, the date will be Sept. 17-26.

Big Net Profit Shown by French Repusseau

PARIS, Sept. 1 (*by mail*)—A net profit of 4,891,298 francs, after writing off for depreciation, is shown by the Repusseau Co. of Paris, manufacturer of Hartford shock absorbers and Boyce Motometers under license from the American patent holders. Repusseau holds manufacturing and sales rights for the whole of France for these two accessory lines.

Owing to exchange and import duties, manufacturing is carried out in France, only a few parts being imported. Estimates are that a greater volume of business will be done in 1924 than last year and in consequence of increased demand a new factory has been erected in the suburbs of Paris, with an area of 54,000 sq. ft.

Exhibitors Showing Trade Day Interest

Equipment Makers File Applications Early for Space at National Shows

NEW YORK, Sept. 8—The innovation of trade days at the national shows has particularly interested manufacturers of parts and accessories, with the result that a large number of applications for space already have been filed with the show department of the Motor and Accessory Manufacturers Association, more, in fact, than usually are in at this early stage of promotion.

Equipment makers are particularly impressed with the opportunity thus afforded to meet their customers at a time when future bookings can be made, especially since the action of the board of directors of the National Automobile Chamber of Commerce last week, which means, it is declared, a full attendance of those who do the buying for the car builders.

This action took the form of a recommendation which calls on all members exhibiting to send to the trade days representatives of the engineering, production and purchasing departments, those voting for such action including the following officials:

Colonel Charles Clifton, chairman of the board of the Pierce-Arrow Motor Co.; Roy D. Chapin, chairman of the board of the Hudson Motor Car Co.; A. R. Erskine, president of the Studebaker Corp.; Alfred H. Swayne, vice-president of the General Motors Corp.; H. H. Rice, president of the Cadillac Motor Car Co.; A. J. Brosseau, president of Mack Trucks, Inc.; C. D. Hastings, president of the Hupp Motor Car Co.; C. C. Hanch, vice-president of the H. C. S. Motor Car Co.; Fred J. Haynes, president of Dodge Brothers; John N. Willys, president of the Willys-Overland Co.; Alvan Macauley, president of the Packard Motor Car Co.; T. R. Dahl, vice-president of the White Motor Co. and R. E. Olds, chairman of the board of the Reo Motor Car Co.

In addition to passing this recommendation, each of the directors agreed to do as suggested, so the purchasing power of all of the companies represented by these directors is assured for the two trade days at both the shows.

150 Chinese Students Pay Visit to Detroit

DETROIT, Sept. 8—One hundred and fifty Chinese students from a number of colleges in the middle western section of the United States were guests of the Detroit Board of Commerce today, visiting the principal industrial plants of the city. Walter C. Boynton of General Motors Corp. was chairman of the Board of Commerce Committee, entertaining the students.

Arriving in the city in the morning, the students were taken to the General Motors Building for luncheon, afterward visiting industrial plants.

Men of the Industry and What They Are Doing

Mowbray Is Battery Commissioner

The National Battery Manufacturers Association has appointed Arthur Mowbray, secretary of the Asbestos Brake Lining Association of New York, as commissioner. Undoubtedly the headquarters of the battery association will be moved to New York, where Mr. Mowbray is located.

Bertram G. Work Sails for Europe

Bertram G. Work, president of the B. F. Goodrich Co., has sailed for Europe, where he will visit England, France and Germany on the company's business. Mr. Work left well satisfied with conditions in the tire industry, declaring it is his belief that Goodrich earnings in the second half will show an improvement over the first six months. Because of the sharp advance in crude rubber, he looks for possible price increases on tires. The Goodrich company, he says, is producing 25 per cent more tires than a year ago.

Bauer on Mexican Mission

George F. Bauer, secretary of the Foreign Trade Committee of the National Automobile Chamber of Commerce, is a member of the American Industrial Mission to Mexico as a representative of the N. A. C. C. The mission has been invited by the Mayor of Mexico City to visit the neighboring republic, with the idea of encouraging business relations between the two countries. The Mexican Government has arranged to entertain the visitors and a reception will be given by President Obregon in his palace. Mr. Bauer will confer with automotive representatives in Mexico with a view to bringing about closer contact between manufacturers and distributors in the development of motor trade and transport.

Ayers Named General Sales Manager

J. C. Ayers has been appointed general sales manager of the Gotfredson Truck Corp., returning to the factory end of the truck business, in which he has been a well-known figure for several years. Mr. Ayers started with the Rapid Motor Vehicle Co., later was sales executive with the General Motors Truck Co. for six years, and following this work was engaged in distribution of Republic and Denby trucks.

Heed Placed in Charge of Sales

Rushmore B. Heed has been appointed vice-president in charge of sales of the Garford Motor Truck Co. Mr. Heed started in the truck business in 1916 as a member of the sales staff of the Diamond T company, later becoming Chicago sales manager of the Republic Motor Truck Co., Chicago branch manager of Diamond T, special corporation salesman for Mack trucks, again returning to the Diamond T forces as national account and corporation sales manager.

Britons Here On Visit

Conditions in England and Scotland were described as poor by Alex Donaldson and George M. Young, representatives of the Albion Motor Car Co., Glasgow, Scotland, who spent a day in Lansing observing truck making operations at the Reo Motor Car Co. plant. The Albion company manufactures trucks in Scotland. In Scotland alone, 1,000,000 people are on part time or are out of work, Mr. Donaldson said. Much of the idleness was due to union labor troubles, constant strikes and walkouts being called in attempts to force higher wages. Production in the British Isles is by hand work largely and little machinery is used compared with the vast amount of machinery used in the United States.

Argentina Distributor Here

Cristobal A. Canton, general manager of Canton Bros. & Co., Buenos Aires, Argentina, wholesale distributor of automotive products, is in this country, visiting manufacturers. Mr. Canton, who can be reached through the Class Journal Co. New York office, announces his willingness to give whatever assistance and information he can to American manufacturers of automotive products who contemplate doing business in Argentina.

Palm with Consulting Engineer

George H. Palm, designing engineer for the Yellow Coach Manufacturing Co. of Chicago, has severed his connection with that concern to become associated with Benjamin S. Pfeiffer, consulting engineer of Chicago, specializing on axle and transmission design for motor coaches and trucks.

Pulcher Visiting Europe

Martin Pulcher, president of the Federal Motor Truck Co. and a member of the N. A. C. C. Truck Committee, is visiting Europe to attend the automobile shows in London and Paris. He also will confer with dealers regarding automotive business in Belgium, Holland, France and England.

G. M. C. Shifts Executives

Under a change in its distribution system the General Motors Truck Co. has named V. H. Day and B. M. Price regional vice presidents, the former to be in charge of distribution of the Pacific Coast, with headquarters in San Francisco, and the latter to occupy a similar relation to the Atlantic Coast business, with headquarters in New York. C. H. Engleman, who has been wholesale manager in the New York territory, becomes general sales manager of the company under the new arrangement, his headquarters being at the factory in Pontiac. All three of the men affected by the changes are known as long experienced in the truck field.

Baugh with Used Car Bureau

Paul R. Baugh has been appointed resident secretary of the General Used Car Bureau of Detroit. Mr. Baugh formerly was general manager of the Percy Chamberlain Associates and for a number of years served the Goodyear Tire & Rubber Co. as manager of dealer development.

Angle Opens Office in Detroit

Glenn D. Angle, until recently chief engineer of the Government Aircraft Experimental Station at Dayton, Ohio, has opened an office in the General Motors Building, Detroit. He intends to function as a consulting engineer, specializing on the design and construction of commercial aircraft engines.

Cooper Succeeds Case

Stanley Cooper has succeeded Phillips N. Case as advertising manager of the Fafnir Bearing Co. of New Britain, Conn.

Kauffman Metal Products Reelects Its Directors

TOLEDO, Sept. 10 — Stockholders of the Kauffman Metal Products Co. at a meeting held here reelected as directors of the company Frank P. Kennison, Judge James Austin, Jr., J. S. Kauffman, A. J. Miller, E. R. Albaugh and B. F. Skidmore. Mr. Skidmore remains as president, general manager and treasurer and Mr. Kauffman as secretary and chief engineer.

The company specializes on Logan gears for flywheels and also makes other standard parts. It has its headquarters and one plant at Bellefontaine, while it recently purchased the plant of the Modern Glass Co. here.

Hall at Leipzig Fair Secured for Americans

BERLIN, Aug. 30 (*by mail*)—The American Chamber of Commerce in Germany, with headquarters in this city, has secured for American interests an exhibition hall of more than 5000 sq. ft. at the Leipzig fair, which will be held from March 1 to 11.

Automotive interests will be housed in the technical group, which comprises practically all products of the iron, steel and electrical industries. These will not be placed in the American hall but in what is known as the technical fair, located in various exhibition buildings.

4 Bus Lines Seeking New York Franchise

Omnibus Corp. of America Started Race for Street Privilege in Metropolis

NEW YORK, Sept. 9 — The decided swing toward bus transportation in Greater New York, started several weeks ago when the Omnibus Corp. of America asked the city to extend the scope of operations of the Fifth Avenue Bus Co., has been emphasized by three more companies bidding for the use of the streets of the metropolis.

As yet the city officials have made no decisions, although hearings have been given and progress has been made toward solving the problem. It is expected that on Sept. 19, when the Board of Estimate meets, the race for the city's favor will be narrowed down to one or two companies.

Other Companies in Field.

Since the Omnibus corporation submitted its bid, three other operators have come into the field. The Brooklyn-Manhattan Transit Co., operating subways, wishes to augment its service by using buses as feeders, giving transfers. In order to demonstrate the worth of its proposition it put several of its buses into operation, giving free rides to subway patrons.

Following this, the Third Avenue Railroad Co., operating surface trolley lines in the Bronx, asked for franchises for 10 bus routes in that section and as many on Manhattan, with Bronx transfers for an additional 5 cents, while on Manhattan transfers are to be free from all 10-cent bus lines to trolleys. The Third Avenue is working through a subsidiary, the Surface Transportation Corp. of New York.

The fourth in the field is the Service Bus Corp., formed last week, which would operate gasoline-electric buses at a straight 5-cent fare, wth a 2-cent transfer privilege, over approximately 125 miles of New York City streets. Prominent in this company is E. M. Howe, president of the American National Omnibus Corp., which is interested in the Tilling-Stevens gasoline-electric bus, in use on some of the London routes.

It is said the Tilling-Stevens bus will be used by the New York company if it secures its franchise.

Mayor Hylan is taking an active interest in the bus situation and seems to be favorably inclined toward the several propositions, the free transfer offer apparently appealing to him.

Fifth Avenue Board Reorganized

NEW YORK, Sept. 9—A reorganization of the board of directors of the Fifth Avenue Coach Co. has taken place, whereby, as was expected, John A. Ritchie, president of the Omnibus Corp. of America, has become chairman of the board of the Fifth Avenue company.

Frederick T. Wood continues as president and will operate the company, while the other members of the board include John Hertz, chairman of the Omnibus board; Phillip T. Dodge, James B. A. Fosburgh, John C. Day, Frederick L. Lavanburg, Grayson M-P. Murphy, Charles H. Sabin, Henry Sanderson, Edmond E. Wise, Frederick Strauss and D. Raymond Noyes.

Colonel Grayson M-P. Murphy, in the reorganization, retired as chairman of the board, and Mr. Hertz and Mr. Noyes replaced H. H. Vreeland and E. J. Berwin of the board.

Following this meeting the Omnibus corporation announced the extension of the People's Motor Bus Corp. of St. Louis, with 12 new routes covering 43 additional miles. This means, it was stated, the purchase of 75 new motor coaches at a cost of about $1,000,000. The increased service will start at once.

Maxwell and Subsidiaries Shown in Strong Position

DETROIT, Sept. 9—Reporting on the financial position of the Maxwell Motor Corp., President Walter P. Chrysler announces that his official figures as of July 31 show the Chrysler and Maxwell companies in a strong position.

Cash on hand was $3,521,798 as against $2,705,000 in January. Inventories, which in January amounted to $12,610,000, had been reduced, up to July 31, to $10,486,000. Sight drafts drawn on customers against shipments were $1,595,000 in January and $2,716,000 in July. Net working capital of the company, which in January amounted to $7,678,000, had increased by July 31 to $12,978,352.

The company had no bank loans, while its material commitments were approximately the lowest in its history, representing only about five weeks' requirements at present rate of operations.

Earnings of the Maxwell Motor Corp. and its subsidiaries in July totaled $609,869, after depreciation and interest. This is at an annual rate of more than $7 a share on the 611,475 shares of Class B stock outstanding, after depreciation, interest, taxes and allowance for full 8 per cent dividends on the Class A stock. Estimated earnings for August are $500,000.

CHARLOTTE RACE ENTRANTS

CHARLOTTE, N. C., Sept. 11—Fourteen drivers have been signed to participate in the 250-mile race on Oct. 25 over the Charlotte speedway. They are: Jimmy Murphy, Tommy Milton, Earl Cooper, Bennie Hill, Antoine Mourre, Fred Comer, Harry Hartz, Harlan Fengler, Ernie Amsterburg, Bob McDonogh, Peter De Paolo, Wade Morton, "Red" Cairens and Phil Shafer. Fred Wagner, veteran starter, has made arrangements with the Charlotte Speedway Association so that he will arrive here on or about Oct. 10 to assist in putting the track in order for the race.

Round World Fliers Start Home Stretch

Arrive in New York and After Trip Across U. S. Will End Trip at Seattle

NEW YORK, Sept. 9—With due pomp and ceremony the round-the-world fliers were received in New York yesterday and today they took the air again to fly to Washington, to be greeted by President Coolidge, following which they will resume their home-stretch flight to the Pacific Coast. When Seattle is reached they will have completed their circle of the globe, a feat which is regarded in aviation circles as being the greatest air achievement since the Wrights found a way to fly.

Boston, of course, marked the official American landing of the two surviving planes, the Chicago, piloted by Lieut. Lowell H. Smith, and the New Orleans, handled by Lieut. Erik Nelson. The third ship in the little fleet was the Boston II, which carried Lieut. Leigh Wade, whose original ship was lost near the Orkneys. In order that Wade might complete his circuit of the globe the Boston II was sent him. Boston was reached last Friday and the flight from there to New York made yesterday.

New York's reception was staged at Mitchel Field, thousands turning out to greet the aviators. Among those welcoming them was the Prince of Wales, who personally greeted the pilots, declaring, "Your achievement has been wonderful." General Patrick, chief of the Army Air Service, represented the Government.

Three Circuit Chasers Star in Readville Race

BOSTON, Sept. 8 — Jimmy Murphy, Bennie Hill and Peter De Paolo, circuit chasers, starred in the dirt track meet at Readville, Saturday. The leader in the championship race, Murphy, in a Miller Special, won the Australian pursuit race and the 15-mile event, the only ones in which he participated. Hill was second in the pursuit and third in the 15-mile, while De Paolo was shut out.

There were two fatalities, in each case a spectator being killed. One of the fatalities followed an unusual accident. After the time trials, held the day preceding the meet, Earl Vance in a Hispano started to tow Beal's car off the track. After letting in the clutch and running a few feet, the flywheel on Beal's car burst, a 12-year-old boy standing near receiving the full force of the crash. He died in a hospital from his injuries.

The other fatality occurred in the 10-mile handicap when Tom Harrington crashed into the fence. A wheel on his car came off, hitting a spectator who died as a result of the odd accident.

110 Hp. Is Expected from 91-In. Talbot

Design of Racer Is Similar to Sunbeam—Engine Featured by Supercharger

PARIS, Sept. 1 (*by mail*)—An output of 110 horsepower is claimed from the ninety-one cu. in. supercharged racing Talbot-Darracq which will make its first appearance in the 200-mile light car race on Brooklands track this month, and later will run at San Sebastian and other places on the Continent.

The Talbot-Darracq racers are of the same general design as the 122-in. six-cylinder Sunbeams which ran in the European Grand Prix, and have been designed by Engineers Louis Coatalen and Bertarione. They have four steel cylinders of 67 by 105.5 mm. bore and stroke, with a common steel water jacket, and are fitted with two valves per cylinder operated by overhead camshafts through a chain of spur pinions at the rear. Roller bearings are used for the one-piece balanced crankshaft and for the I-section connecting rods.

Supercharger Device

One of the features of this engine is the supercharger device comprising a double 8 Rootes blower contained in an aluminum housing at the front and driven off the fore end of the crankshaft. The blower draws the charge through a single Solex carbureter and delivers it through a horizontal feed pipe, provided with a safety valve to take care of a possible blow-back from the engine, into a double Y-intake manifold.

The same type of blower was used on the six-cylinder Sunbeams in the European Grand Prix and gave every satisfaction. Lubrication of the blower is provided for very simply by taking a lead from the oil return pipe from the overhead camshaft housing and carrying it back to the lowest portion of the base-chamber. Engine lubrication is of the dry sump double pump type, with all the oil contained in a tank under the seats and the full width of the frame.

Engine of Unit Construction

The engine is unit construction with the multiple disk clutch and the four speed transmission. Final drive is by open shaft, having two all-metal universal joints, the shaft being above the oil tank and above the central cross frame member. No differential is used in the rear axle. The axle housing has an aluminum center and two bell-tubes machined from the solid.

A four-wheel braking system is used without a servo mechanism. An entirely new type of front axle is being made use of, this being a three-piece construction, of circular section, flanged and bolted together. On the earlier design, as used by Sunbeam, the center portion of the axle was I-section.

The present racing car has the front springs going through slots in the outer parts of the axle. Wheelbase is 90½ in., with a track of 49 in. front and 43 in. rear. Without fuel the car weighs 1230 lbs., of which 33 lbs. are represented by the supercharger. It is believed that the maximum speed ability will be about 116 m.p.h.

Two New Sedan Models Announced by Chandler

CLEVELAND, Sept. 10—The Chummy Sedan, priced at $2,045, and the Metropolitan Sedan de Luxe, at $2,195, have been announced as improved models by the Chandler Motor Car Co. Both are equipped with a new type one-piece windshield, which is so arranged that it can be raised and lowered vertically by means of a regulation window crank.

The new bodies are lower and have a double belt of moulding, the lower bead running the full length of the car. Rounded rear quarters and new type of leather-covered visor add to the appearance of the cars.

Window mouldings are of circassian walnut, with the instrument board and full-width ventilator panelled to match. Interior hardware has a combination of dull and bright silver finish; carpet and seats are gray.

The windshield crank is mounted over the windshield in front of the driver and a half turn raises the glass one inch. When the glass is thus raised the air does not flow directly into the car but passes below the lower edge of the glass into a ventilator that extends the full width of the body, passing down between the instrument board and the dash, and setting up a circulation through the car. When the glass is raised more, it clears the edge of the ventilator and admits air directly into the car.

Standard equipment includes balloon tires, nickeled radiator shell, Moto-Meter, bumper, automatic windshield wiper regulated from the instrument board, and leather-covered visor. Colors are black and Luxor blue.

Olds 5-Passenger Coach Carries New Fisher Body

LANSING, MICH., Sept. 14—A five-passenger coach priced at $1,065 has been added to the Oldsmobile line. The body is the first of this type to be built by Fisher and is equipped with the one-piece, sliding, VV windshield. The finish is blue Duco and the upholstery is velour.

The rear seat is 46½ in. wide and 22 in. deep, and there is 18 in. of leg room between it and the backs of the front seats. Crank regulators are provided on the windows, in the doors and rear quarters. An automatic windshield cleaner and cowl lights are regular equipment.

A choice of three colors is now being offered on the two passenger business coupe. The colors are blue, maroon and brown, the finishing material being Duco in each case.

FINANCIAL NOTES

Stromberg Carburetor Co. reports net profit of $166,404 for the second quarter, equal to $2.21 a share earned on the 75,000 shares of capital stock outstanding, after the usual deductions. In the first quarter the company earned $2.72 a share. The general balance sheet as of June 30 showed current assets of $1,961,447, of which $848,945 was cash, and current liabilities of $227,875, leaving a working capital of $1,733,572.

Fifth Avenue Bus Securities Corp. reports net income of $57,092, after expenses, for the first half of the year, leaving a deficit of $1,516 after dividends. The balance sheet showed assets of $3,361,761, which included $760 cash, $3,000 accounts receivable and $3,361,001 investments. Liabilities were $3,364,967, capital stock; $875, accounts payable and $2,919 surplus.

Reo Motor Car Co. has announced an extra dividend of 3½ per cent in addition to the regular quarterly payment of 1½ per cent. Both dividends are payable Oct. 1 to stockholders of record Sept. 15.

Fisher Body of Ohio Co. has declared the regular quarterly dividend of 2 per cent on preferred, payable Oct. 1 to stock of record Sept. 19.

Mack Trucks, Inc., has declared regular quarterly dividends of $1.50 on common and $1.75 on first and second preferred, all payable Sept. 30 to stock of record Sept. 15.

Bassick Alemite Corp. has declared the regular quarterly dividend of 50 cents, payable Oct. 1 to stock of record Sept. 20.

New Eaton Axle Produced for Use on Motor Buses

CLEVELAND, Sept. 10.—A new axle for motor buses, known as the Model 60,000, has been brought out by the Eaton Axle & Spring Co. It is a full floating double reduction axle, the first reduction being by spiral bevel and the second by herringbone gears.

The load-carrying member is built up of a cast steel center housing and heat-treated steel tubes, which latter are swedged down at the outer ends where the wheel bearings are mounted on them. The overall depth of the housing is 13½ in., which, with 36-in. wheels, gives a ground clearance of 11¼ in. Hotchkiss drive may be used with this axle, but provision is also made for a torque arm.

The carrying capacity on the spring pads is rated at 12,000 lb. maximum, and the torque capacity at 22,000 lb.-in., the maximum allowable engine displacement being about 590 cu. in. The axle is suitable for 36 by 6-in. dual tires, or 37 by 4 in. when using internal brakes. Means are provided for mounting an air cylinder for operating the brakes. The axle complete, including hubs and drums, weighs approximately 990 lb. Reduction ratios varying from 4½ to 7½ may be provided. The hubs are made to accommodate demountable disc wheels.

JOHN F. ALVORD ESTATE

NEW YORK, Sept. 10—An estate appraised at $4,074,620 was left by the late John F. Alvord, president of the Splitdorf Electric Co.

Steel Demand Better from Car Producers

September Is Improved Over August in Orders for Bars and Small Shapes

PITTSBURGH, Sept. 8—Steel interests here declare that business from the automobile industry for steel bars and small shapes is coming to the mills in better volume for the first part of September than in the same period of August and that the outlook for continued buying by the automotive trade is good.

In the sheet trade, orders from the motor interests are classified as fair but individual purchases are in small quantities.

Practically all prices are the same as heretofore and there is nothing to indicate a change from this angle. Relatively all orders are being taken for early delivery or, as it has come to be classified, at the mills' convenience. In the specialty mills this means approximately six weeks.

The local mills, particularly in sheets, are taking the position that they will not sell for the final month of the year at present prices, and as far as can be learned this practice is being observed by the independent mills, although the steel situation now has moved through nearly two months of moderate improvement without any advancing tendency in quotations.

A short time ago it was reported that the automobile interests were eager to make purchases at present prices for the full balance of the year, and then other classes of purchasers were said to have followed suit without much success. Now, however, it would not be surprising to find some of the independent mills willing to take business at present prices through November at least and possibly through December.

The conservative policy of the mills has been due to a decision not to fill up on low priced tonnage but to let the smaller units take such business until they are well filled, then the situation will turn from a buyer's to a seller's market.

Irving Has Not Stopped Manufacturing Shutters

BUFFALO, Sept. 8—The Irving Engineering Sales Co., Inc., its officials declare, has not discontinued the manufacture of the Irving automatic shutter. Its agreement with the Pines Manufacturing Co., reached following a conference on patent litigation, limits the Irving company to the production of 25,000 of these automatic shutters up to March 1, 1925, and the company states that it now is in position to furnish up to this quantity to its distributors and trade.

Answering rumors, the Irving company says:

An article appearing in Class Journal publications created an unfavorable impression with reference to the Irving automatic shutter in view of the fact that it intimated that the Irving Engineering-Sales Co. had discontinued manufacturing the Irving automatic shutter.

This opinion is so prevalent in the trade that in some cases, in view of this article, it is difficult to convince the trade that the Irving automatic shutter will be presented to them and to the public this season.

According to the arrangement made between the Irving Engineering-Sales Co. and the Pines Manufacturing Co., in view of contentions on both sides, an agreement was reached which is equitable not only from the viewpoints of both concerns, but also for the distributors and dealers in the field. It is true, however, that according to terms of the agreement that the Irving Engineering-Sales Co. limits its production to 25,000 automatic shutters up to March 1, 1925, and is in position to furnish up to this quantity to its distributors and trade.

The Irving Engineering-Sales Co. is doubly alive this year, as it is not only producing and marketing the 100 per cent automatic shutter, but has strengthened its line through the addition of the new Arctic hand-operated shutter, a worthy running mate for the automatic.

INDUSTRIAL NOTES

Yellow Sleeve-Valve Engnie Works has temporarily laid off 60 men during installation of new and larger equipment to increase the production of automobile bodies at its East Moline, Ill., plant. Louis Ruthenberg, general manager, says that the force will be curtailed probably three weeks pending the placing of the new machinery. The company is producing bodies for the Yellow Cab Co. of Chicago.

Willam F. Emerson and James Chalmers, Jr., have purchased the interests of L. A. Hallstead and George D. Armstrong in the Auto-Hone Co., Inc., and the HaLee Tool Co., Buffalo. The new owners will continue the business along more progressive and co-operative lines, they state, manufacturing Auto-Hones, HaLee crankpin tools and Aukrac bearing boring fixtures.

General Motors Chemical Co., Dayton, has secured additional room and equipment for handling ethyl gas. The new equipment makes possible the rapid and automatic handling of the fluid and the filling of the containers used in the ethylizers attached to gasoline service station pumps.

Gary Delivery Express $1,590 Added to Line

GARY, IND., Sept. 10—A new 1-ton delivery express listing at $1,590 and known as model WLD has been added to the line of trucks manufactured by the Gary Motor Corp.

The new model comes equipped with 33 x 5 pneumatics, front and rear, electric lights and starter, transmission tire pump and speedometer.

BERLIN SHOW POSTPONED

BERLIN, Aug. 30 (*by mail*)—The Berlin automobile show scheduled to be held in September has been postponed until December, the exact dates to be set later.

METAL MARKETS

Every day adds something to the market's activity in automotive steels. There is nothing of the spectacular in evidence in any of the steel market's departments, but progress is slow and steady. Sheet mill operations are now close to three-fifths of capacity, denoting a good gain over the corresponding week of last month. Price shading is becoming more and more of an exception. The market for blue annealed, black, and full-finished automobile sheets may now be characterized as steady with a firm undertone. Alloy steel makers have received some new business, and more is under negotiation.

A better feeling is noted in cold-finished products, automotive orders being more numerous, although individually not very impressive. Everything points to a healthy quickening of buying in orderly fashion. Unless the unforeseen happens, prices all around will remain on an even keel for some weeks to come. This is the interpretation put upon the Corporation's unfilled tonnage statement, published this week. The real turn in the Corporation's backlog of orders is looked for this month and should have some effect on the market when it is published a month hence.

This effect, however, is not likely to be an immediate scramble for higher market levels, but merely of greater stability. With nearly three-quarters of the year passed into history, it looks now as if 1924 would be devoid of the violent price fluctuations that characterized some of the post-War years, and as if the steel industry is headed for more settled conditions. Readjustments are bound to take place. Some commodities continue to afford a too scant margin between cost and market level. Either production costs all around will have to be pruned or prices for these will have to be lifted to slightly higher levels. All in all, however, the 1924 price curve is likely to show none of the sharp tilts and dips recorded in the first three post-Armistice years.

Pig Iron.—Attempts to lift the market to higher levels entail hard work. In some markets the position of foundry and malleable irons is improved to the extent of 50c. per ton; in others, selling pressure seems sufficient to retard the full-fledged $20 market. In a recent sale of No. 2 X foundry, the seller waived the ordinary premium over No. 2 plain. Generally speaking, however, the market is on a $20, valley, basis.

Aluminum.—The position of this metal is entirely unchanged. It will take time for the Dawes pact to bear fruition, and apprehension on the part of American and British interests that the Germans will attain a much greater hold on the principal consuming markets than they have had since the war, pertain to the years to come and not to the present. Certain, it is, that with much cheaper labor and good rolling mill practice, the Germans plan to export much more in the way of aluminum sheets and circles, once their ingot supply has been augmented through the addition of reduction plants now under construction. Additional tariff barriers against this competition will be sought, but the Germans have no intention to "dump." What they are after is the highest possible price. They will shade competitors' prices, but not slash.

Copper.—The ingot market rules quiet, but Connecticut Valley finished products manufacturers report a gain in automotive orders.

Calendar

SHOWS

Oct. 21-27—Transportation Show, Motor Truck Industries, Inc., American Exposition Palace, Chicago.

Nov. 9-15—New York, Annual Automobile Salon, Commodore Hotel.

Nov. 10-15—Chicago, Annual Show and Convention of the Automotive Equipment Association, Coliseum.

Jan. 2-10—New York, National Automobile Show, under the auspices of the National Automobile Chamber of Commerce, Bronx Armory. Trade attendance only, Jan. 2-3.

Jan. 23-31—Chicago, National Automobile Show, under the auspices of the National Automobile Chamber of Commerce, Coliseum and First Regiment Armory. Trade attendance only, Jan. 23-24.

Jan. 25-31—Chicago, Annual Automobile Salon.

FOREIGN SHOWS

Sept. 21-28—Prague, Czecho-Slovakia, Prague Autumn Fair.

Oct. 2-5—Dantzig, Second International Dantzig Fair, automobiles and allied equipment.

Oct. 2-12—Paris, passenger cars, motor cycles, bicycles and accessories, Grand Palais.

Oct. 17-25—London, Annual Passenger Car Show, Olympia.

Oct. 22-31—Paris, motor trucks, stationary engines, garage tools and machine tools, Grand Palais.

Nov 9-19—Buenos Aires, Annual Automobile Show, Pabellon de las Rosas, under the auspices of the Automovil Club Argentino.

Dec. 1-13—Montevideo, Uruguay—Second Annual Motor Show, under the auspices of the Centro Automovilista del Uruguay, held in buildings of the Associacion Rural del Uruguay.

RACES

Oct. 2-4—Dayton, Ohio, Fifth Airplane Race for the Pulitzer Trophy.

Oct. 4—Fresno.

Oct. 19—Kansas City.

Nov. 24—Los Angeles.

CONVENTIONS

Sept. 17-20—White Sulphur Springs, W. Va., Annual Meeting of the Automotive Electric Association, Greenbrier Hotel.

Sept. 26-27—Niagara Falls, Hotel Clifton, National Battery Manufacturers Association.

Sept. 22-26—Boston, Sixth Convention and International Steel Exposition of the American Society for Steel Treating.

Oct. 15-17—Cleveland, Fall Convention of the Motor and Accessory Manufacturers Association.

Oct. 16-18—Briarcliff Manor, N. Y., Semi-Annual Meeting of the American Gear Manufacturers Association, Briarcliff Lodge.

Jan. 5—New York, Convention under the auspices of the National Automobile Dealers Association, Hotel Commodore.

Jan. 26-29—Chicago, Eighth Annual Convention of the National Automobile Dealers Association, Hotel LaSalle.

S. A. E. MEETINGS

Sept. 17—New England Section, Motor Bus Lighting, A. C. Roy.

Sept. 18—Metropolitan Section, Should Motor Trucks Be Rebuilt Periodically or Replaced, Francis W. Davis.

Sept. 18-19—New York City, S.A.E. Automotive Transportation Meeting.

Sept. 19—Chicago Section, Inspection Tour to Yellow Cab Plant, Golf Tournament, Galewood Golf Club.

Sept. 24—New England Section, Abrasives and Their Use.

Sept. 26—Washington Section, Cosmos Club, The Chemical Control of Gaseous Detonation, Thomas Midgley, Jr.

Oct. 2—Aeronautical Meeting at Dayton at the time of the Pultizer Races.

Oct. 22-24—S. A. E. Production Meeting, Detroit.

Nov. 18-19—Joint Service Meeting of the S. A. E. with the N. A. C. C. Cleveland.

Jan. 20-23—S. A. E. Annual Meeting, Detroit.

Good Fall Expected in Atlanta District

ATLANTA, GA., Sept. 10—Automotive distributors in Atlanta advise that sales in August continued to hold their own with the mid-summer period, but that there is still room for improvement.

However, some of the better known cars have been experiencing a somewhat better volume of sales than earlier in the summer so far as retail business in Atlanta and other larger cities of the district are concerned, but not as large a proportionate increase in the smaller communities.

The fall outlook grows more promising, as cotton prices still are holding to a very high level. Distributors in Atlanta, and many of the smaller town dealers, are looking for sales during the fall and winter season this year to be as good as they have been in the smaller communities and rural districts in the last three or four years.

Automotive accessory jobbers advise that dealers continue their policy in all parts of the Southeast of buying a small stock only, ordinarily hardly more than enough for a 30-day business, or at most six or seven weeks. Accessory business as a whole, however, jobbers state, has continued to run slightly better than last year during the past six or seven weeks, with the fall and holiday outlook generally regarded by wholesalers as good.

Tractor Sales Improved

For the first time in some months farm implement and tractor sales in the Southeast experienced an improvement over the corresponding month, according to the report for July of the Federal Reserve Bank of Atlanta, issued Sept. 1, and covering conditions in the sixth district.

July sales of tractors and power farming equipment, based on reports by the seven larger distributors of the district, were about 5 per cent greater than June, while the outlook at the time the reports were made out indicated an improvement in August of about the same over July. This makes last month 10 to 12 per cent better than June business, and slightly better than the corresponding month last year.

A slight decline was noted, however, in July business as compared with the same month in 1923. Sales have been improving slowly but steadily.

N. A. C. C. Directors Hear Optimistic Sales Reports

NEW YORK, Sept. 8—The monthly survey of retail trade conditions as prepared for the directors of the National Automobile Chamber of Commerce is of a decidedly optimistic tone. This report, compiled from data furnished by local trade associations and N. A. C. C. correspondents, holds out hope that fall business this year may surpass that of last autumn. With some exceptions, a considerable improvement upon the summer months is expected.

Closed car demand at the present time is said to be on the upgrade, with sport models declining and the roadster type maintaining its usual sales volume. In several of the mid-western cities summer sales in both cars and trucks exceeded those of the corresponding period last year.

In the truck field, prospects for the light types are better than last fall in Cleveland, Pittsburgh, Charlestown, Harrisburg, Kansas City, Fargo, Atlanta, Chicago, Des Moines, Omaha and Portland, while heavy duty vehicles are expected to hold up to the demand of last fall.

Detroit Puts Effort on Selling Used Cars

DETROIT, Sept. 10—Deliveries of new cars in Detroit during August totaled 4347, which compares with a July total of 5889 and with a total of 5270 in August last year. The large decrease in new car deliveries for the month is ascribed in large part to concentration on used car sales, particularly by dealers in low priced lines. Ford new car deliveries for August were 1998, as compared with 2780 in July and 2578 in August last year.

Sales by price classes for August, as compared with July and August, 1923, show some divergences. The Ford percentage was 46, as compared with 47 in July and 49 last year. Low priced lines, including Ford, made up 57 per cent of August this year, as compared with 58 in July and 64 last year. All cars $1,000 and under totaled 69 per cent in August, as against 71 in July and 71 last year.

Gain in Medium Priced Cars

Medium priced cars in August ran 27.5 of the total, which compares with 26 in July and 25 last year. High priced lines were 3.5 per cent in August, as against 3 in July and 4 last year. Ford business in August as against August last year decreased about 22 per cent. Other low priced lines showed a falling off of about 40 per cent. Total business for the month was off about 17.5 per cent. Cars in the $800 to $1,000 class gained about 40 per cent over last year.

Truck deliveries for the month were 323, of which 222 were Fords. This compares with a total of 441 delivered last month and 466 delivered in August last year. Aside from Fords, truck business for the month just closed ran heavily to the light verhicles.